Vol. VIII, No. 12 | *An Index Supplement follows this number* | December, 1934

PSYCHOLOGICAL ABSTRACTS

EDITED BY

WALTER S. HUNTER, CLARK UNIVERSITY

RAYMOND R. WILLOUGHBY (*Associate Editor*)

CLARK UNIVERSITY

WITH THE COÖPERATION OF

F. C. BARTLETT, CAMBRIDGE UNIVERSITY
ED. CLAPARÈDE, UNIVERSITY OF GENEVA
E. MIRA, UNIVERSITY OF BARCELONA
R. NIHARD, UNIVERSITY OF LIÉGE
V. OSIPOV, LENINGRAD
H. PIÉRON, SORBONNE
M. PONZO, UNIVERSITY OF ROME
P. RANSCHBURG, HUNGARIAN UNIVERSITY
M. L. REYMERT, MOOSEHEART, ILL.
W. WIRTH, UNIVERSITY OF LEIPZIG

CONTENTS

General 5730–5761
Sensation and Perception 5762–5815
Feeling and Emotion 5816–5819
Attention, Memory and Thought 5820
Nervous System 5821–5849
Motor Phenomena and Action 5850–5883
Plant and Animal Behavior 5884–5904
Evolution and Heredity 5905–5909
Special Mental Conditions 5910–5938
Nervous and Mental Disorders 5939–5987
Personality and Character 5988–6006
Social Functions of the Individual 6007–6059
Industrial and Personnel Problems 6060–6084
Educational Psychology 6085–6130
Biometry and Statistics 6131–6135
Mental Tests 6136–6140
Childhood and Adolescence 6141–6184

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY

THE AMERICAN PSYCHOLOGICAL ASSOCIATION

44 Portland Street, Worcester, Massachusetts

Editorial Office: CLARK UNIVERSITY, WORCESTER, MASS.

Business Offices: 44 PORTLAND STREET, WORCESTER, MASS., AND ENO HALL, PRINCETON, N. J.

Send changes of address to: Psychological Abstracts, Eno Hall, Princeton, N. J.

Subscription, $6.00 per year; Foreign, $6.25

Entered as second-class matter June 6, 1933, at the post-office at Worcester, Mass., under the Act of March 3, 1879

AUTHOR INDEX

Aall, A., 6141
Abel, L. B., 6142
Abrams, M. H., 5910
Achard, H. J., 5939
Adie, W. J., 5762
Adler, F. H., 5763
Adrian, E. D., 5821
Aleck, A. A., 6113
Aliquo-Mazzei, —, 5764
Allison, J. B., 5884
Allport, F. H., 6007
Altenburger, H., 5822
Anastasi, A., 5850
Anderson, H. H., 6085
Anderson, S. E., 5911
[Anon.], 5730, 5940, 6086
Arnold, W., 5765
Aronowitsch, G., 5885
Aronson, L., 5844
Asch, S. E., 5999
Ash, W. S., 6060
Auel, C. B., 6061
Auersperg, A., 5823

Bain, W. A., 5824
Baker, J. S., 6062
Banister, H., 5766
Bard, P., 5816
Barglowski, D., 5988
Barrera, S. E., 5787
Barth, E. E., 5783
Bathurst, J. E., 6063
Beck, S. J., 5731
Bender, L., 5767
Bendix, B., 5851
Benedict, R., 6008
Berger, H., 5825
Bergler, E., 5912
Bernreuter, R. G., 5989
Bethe, A., 5886, 5887
Bevelander, G., 5888
Blair, H. A., 5826
Block, H., 5999
Boháč, A., 5905
Bond, F. B., 5913
Bonnet, V., 5875
Bouckaert, J. J., 5860, 5861, 5862
Bray, G. W., 5814
Brierly, W. G., 5747
Bronstein, I. P., 6143
Broom, M. E., 5817
Brown, A. W., 6143
Brücke, E. T., 5835
Brunswik, E., 5768
Bugg, E. G., 6009
Bühler, B., 5941
Bunker, H. A., 5914
Bustamente, M., 5990
Butler, J. R., 5732

Canella, M. F., 6010
Cannon, W. B., 5852
Carington, W., 5915
Carlson, H. B., 6011
Carmena, M., 5991
Carmichael, L., 5889
Carter, T. M., 6087
Cason, H., 5883
Castaldi, L., 5827
Castle, E. S., 5769
Caswell, H. L., 6088
Chalisov, M. A., 5942
Chang, C. J., 6012
Chapman, R. N., 5906
Chên, H. P., 6014
Chên, H. S., 6089, 6090, 6091
Chen, L. K., 6092
Chêng, W. H., 6090
Chêng, W. S., 6091
Chiang, C. K., 6013
Chotin, B., 5885
Chou, S. K., 6014
Chung, L. C., 5733
Cobb, W. M., 6015
Cochrane, A. L., 5916
Cole, W. H., 5884
Cook, T. W., 5770
Corey, E. L., 5828
Cox, J. W., 5853
Coxe, W. W., 5943
Crooks, K. B. M., 6016, 6093
Crow, L. D., 6113
Crozier, W. J., 5771, 5890
Crutcher, R., 5854
Culler, E., 5734, 5780

Daniels, P. C., 6144
Danowski, G., 5944
Darling, E. F., 5772
Dautrebande, L., 5861, 5862
Davis, A. J., 5992
Davis, H., 5773
Davis, R., 5774
Dekking, H. M., 5735
De Laguna, T., 5736
De Montpellier, G., 5855
Dennis, W., 5775
De Sanctis, S., 5737
Desmond, R., 6064
Di Bella, E. E., 5945
Doll, E. A., 5946
Dorsey, J. M., 6017
Dow, M., 6145
Drepa, H. F., 6018
Duane, A., 5776
Dufton, A. F., 6131
Dunlap, K., 6019
Dusser de Barenne, J. G., 5856

Eccles, A. K., 6041
Edgerton, A. D., 5777
Eichler, W., 5829
Euler, U. S. v., 5862
Evans, F., 6094

Farthing, T. E., 5807
Federn, P., 5917, 5918
Feigenbaum, D., 5919
Feldberg, W., 5830
Feldman, J. B., 5738, 5778
Ferguson, H. H., 5739
Ferree, C. E., 5740, 5779
Finch, F. H., 6095
Finch, G., 5734, 5780
Fischer, A., 5741
Fishgold, F., 6136
Fitzgerald, J. A., 6096
Flach, A., 5857
Follows, A. B., 5781
Forbes, A., 5858
Fowler, B. P., 6146
Frankl, L., 6166
Fremont-Smith, F., 5947
Fuller, B. A. G., 5742

Gaddum, J. H., 5830
Garma, A., 5920
Gasteiger, H., 5782
Gates, A. I., 6097
Geoghegan, P. S., 6096
Georgi, F., 5948
Gerendasy, J., 5921
Germain, J., 6137
Gesell, R., 5859
Gibson, K. S., 5774
Giehm, G., 5993
Gifford, S. R., 5783
Girden, E., 5734
Goldenberg, M. A., 5949
Goldstein, H., 5994
Gonzalo, J., 5930
Goodfellow, L. D., 5784
Göttke, L., 5951
Goyanes, J., 6020
Graham, C. H., 5785
Graham, F. B., 6097
Granit, R., 5831
Gray, H. A., 6098
Grippen, V. B., 6147
Grisewood, E. N., 5893
Gross, A. E., 6099
Grosschopff, E. v., 5952, 5953
Guibor, G. P., 5786
Gummersbach, H., 6021
Guthrie, C. C., 5743
Guttman, J., 5787

Hallpike, C. S., 5788
Hamilton, D. W., 6100
Hamilton, T. G., 5922
Hamlin, R., 6022
Harrington, M., 5923
Harrison, M. L., 6148
Hartenstein, E., 6149
Hartmann, G. W., 6065
Hartog, A. H. de, 5744
Hartridge, H., 5789
Haterius, H. O., 5832
Hattori, Y., 5881
Hecht, S., 5790
Heiser, A. D., 6023
Hendrick, I., 5924
Henson, H. H., 6024
Hersey, R. B., 6066
Hertz, M. R., 5995
Heymans, C., 5860, 5861, 5862
Hildreth, G., 6138
Hill, G. E., 6025
Hill, J. L., 6101
Hillman, L. F., 6102
Hinst, B., 6103
Hirsch, E. W., 6026
Ho, C. J., 6104
Hoagland, H., 5833, 5890
Hoefer, P., 5834
Hoffeditz, E. L., 5996
Hogben, L., 5907
Hogbin, H. I., 6027
Holland, B. F., 5791
Holstijn, A. J. W., 5925
Hopkins, L. T., 6105
Horney, K., 5926
Horton, G. P., 5814
Hotelling, H., 6132
Hou, C. L., 5835
Huber, K., 5792
Hull, C. L., 5863
Hunsicker, W. C., Jr., 5836
Hunter, W. S., 5864

Ibañez, J. S., 5927
Inman-Kane, C. V., 5971
Ishimoda, F., 5881

Jacob-Klessner, E., 5954
Jacobson, W. E., 6028
Jaensch, P. A., 5793
Jahrreiss, W., 5955
James, W. T., 5891
Jasper, C. C., 6150
Jelliffe, S. E., 5965
Johnson, H. H., 5901
Jordan, H. J., 5892
Josephson, E. M., 5794
Judin, T. I., 5969

Kanner, L., 5997
Kao, K. F., 5745, 5746
Kaufmann, I. W., 5956
Katz, S. E., 5998, 6000
Kellogg, C. E., 6067
Khasan, S. I., 5969
Kirk, S. A., 5957
Kirkpatrick, M. E., 6029
Klineberg, O., 5999
Klochkova, K. V., 5969
Koshiba, K., 5881
Kotvis, H. L., 6075
Kubie, L. S., 5928
Kuhn, H. J., 6151

Laird, D. A., 5865
Landis, C., 5818, 6000
Landon, R. H., 5747
Lange, G., 6152
Lashley, K. S., 5866
Lau, T.-T., 5812
Lauer, A. R., 6068, 6069, 6070, 6071, 6072, 6073, 6074, 6075
Laughlin, R. M., 5895
Lawton, S. U., 5913
Lemon, H. B., 5795
Leonhardt, C., 5820
Lester, A. M., 6076
Ley, A., 6030
Lichtenstein, A., 6106
Likert, R., 6031
Lindemann, E., 5929
Link, H. C., 6107
Lippay, F., 5796
Lippert, E., 6153
Lippman, H. S., 5958
Lisitsa, F. M., 5872
Lloret, B. L., 6001
Locke, N. M., 6139
London, L. S., 5934
Loo, Y. T., 5837
Lu, T.-W., 5812
Lund, R., 5867
Lundberg, G. A., 6032
Luquet, G. H., 6033
Lutz, F. E., 5893
Lyon, V. W., 6108

Macdonald, J., 5748
Machener, H., 5797
Macrae, A., 6109
Malamud, W., 5929
Malinowski, B., 6027
Maller, J. B., 5819
Mandowsky, A., 6034
Manzer, C. W., 5868
Marshall, C., 5749
Marts, E. W., 5959
Matsumoto, J., 6154
Matthews, B. H. C., 5821
Mayerhofer, G., 5869
McCarthy, R. C., 6155
McDougall, W., 6035
McElwee, E. W., 6036
McGinnis, W. C., 6110
Melvin, A. G., 6002
Mendenhall, J. E., 6105
Metcalf, M. M., 5870
Mette, A., 6037
Meyer, A., 5960
Middleton, W. C., 6038
Miles, G. H., 6077
Miller, N. E., 6156
Mintz, B., 5894
Mira, E., 6039
Mitchell, J. H., 6078
Mitolo, M., 5871
Moerchen, F., 6040
Mohr, F., 5961
Molitch, M., 6041
Moore, P., 5962
Moorhead, D. F., 5750
Morales, E. G., 6042
Morgan, T. H., 5908
Mori, K., 5881
Morton, N. W., 6067
Moyer, C., 5859
Murchison, C., 5751
Murphy, G., 6031
Myers, G. C., 6157

Nafe, J. P., 5798
Nasonov, B. A., 5949
Nathanson, Y., 6079
Neild, H. W., 5750
Nemzek, C. L., 6095
Neuhaus, W., 6152
Newell, H. W., 6111, 6158
Newman, J. L., 5963
Ngowyang, G., 5838, 5839
Nicole, J. E., 5964
Notkin, J., 5965

Oberndorf, C. P., 5930
Oka, S., 6159
Osborne, O. T., 5966

Page, J., 6003
Parker, H. T., 5967
Parr, L. W., 5799
Parry, A., 6043, 6044
Parvulescu, V., 5800
Pascal, J. I., 5801
Paterson, D. G., 6112
Patrick, J. R., 5895
Patzl, H., 5796
Pauli, R., 5869
Peatman, J. G., 6139
Peirce, C. S., 5752
Pentsik, A. S., 5872
Pérès, J., 6045
Perry, J. S., 5968
Petrov, S. P., 5969
Pfleger, E., 6160
Pierce, W. O'D., 6080
Pintner, R., 6113
Piotrowski, Z., 5998
Popov, N. F., 5873
Posthumus Meyjes, F. E., 5802
Pratt, K. C., 6161
Pulver, M., 6046
Rabaud, E., 6047
Ramon y Cajal, S., 5840
Rand, G., 5740, 5779
Raubicheek, L., 6048
Raufenbarth, C., 5841
Rawdon-Smith, A. F., 5788
Reeder, C. W., 6114
Reeve, G. H., 5970
Reisner, E. J., 6162
Renquist, Y., 5813
Renz, C., 6163
Renz, M. P., 6163
Resnikoff, P., 6004
Reynolds, B. C., 6049
Richard, A., 5875
Richardson, H. M., 6164
Richmond, W. V., 6115
Riera, J. G., 6050
Riesz, R. R., 5803
Rioch, D. McK., 5822
Robertson, C. S., 5804
Robertson, E., 6051
Robinson, E. S., 5874
Rochon-Duvigneaud, A., 5896
Rodgers, F., 6165
Rodrigo, M., 6137
Rogers, H. W., 6116
Rosanoff, A. J., 5971
Roslow, S., 6031
Rothschild, R., 5753
Rubinow, O., 6166
Rummell, H. S., 6117
Rushton, W. A. H., 5842
Ryan, J. J., 6113

Sacristán, J. M., 5972
Sandiford, P., 6118, 6119
Santenoise, D., 5875
Sanz, E. F., 5973
Sasaki, R., 5881
Schaal, R., 6151
Schachter, M., 5974
Schäfer, T., 5876
Schilder, P., 5767
Schlesinger, H. I., 5795
Schmaltz, G., 5931
Schmideberg, M., 5932
Schnidtmann, M., 5975
Schnitker, M. T., 5848
Schrijver, J., 6052, 6053
Schwartz, H. G., 5843
Schwarz, R. S., 5976
Seagoe, M. V., 6140
Seashore, C. E., 6054
Seashore, H., 6054
Seelhammer, N., 5933
Segel, D., 6120
Seif, L., 5977
Seki, H., 6167
Seward, G. H., 5877
Seward, J. P., 5877
Seyfert, W. C., 6121
Shartle, C. L., 6081
Sherbon, F. B., 6168
Shimidu, E., 6169
Shimozuma, T., 5881
Smith, E. D., 6082
Smith, K. U., 5897
Smith, T. V., 6055
Snedecor, G. W., 6133
Sobol, E. D., 5898
Soskin, S., 5754
Spaeth, E. B., 5805
Speer, E., 5978
Speier, H., 5755
Spiegel, E. A., 5836, 5844
Spring, W. J., 5756
Stauder, K. H., 5979
Steinberg, J. C., 5806
Stekel, W., 5934
Sterba, R., 5935
Stevens, S. N., 6083, 6134
Stevenson, G. S., 5980
Stoddard, G. D., 6170
Stoll, M. R., 5779
Stone, C. P., 5878
Stone, L. S., 5807, 5894
Strachey, J., 5936
Strong, C. A., 5757
Strong, E. K., Jr., 6171
Sugimoto, R., 5881
Sumner, F. B., 5899
Svetnik, Z. Y., 5845
Switzer, St. C. A., 5879
Symonds, P. M., 6005
Szalai, A., 5937

Taggart, A. D., 6056
Takei, K., 5881
Taylor, H. C., 6006
Ten Cate, J., 5900
Tenwolde, H., 6122
Ter Braake, A. L., 6057
Terwiel, G. J., 5892
Theman, V., 6130
Therman, P. O., 5831
Thielen, J., 5981
Thom, D. A., 6172
Thomas, F., 6173
Thomasson, A. H., 5808
Thorneval, A., 5880
Tiebout, C., 6174
Tilton, J. W., 6123
Tokay, L., 5982
Tokuda, M., 5881
Troland, L. T., 5809
Tsumura, T., 6175
Tumlirz, O., 6124
Twitmyer, E. M., 6079
Twitty, V. C., 5901
Tyndal, B. S., 6121

Uchiyama, K., 5881
Umrath, K., 5846
United States Office of Education, 6125
Unsicker, C. E., 6126
Uramoto, S., 5881

Valenciano, L., 5983
Valentiner, T., 6176
Van der Horst, L., 5758
[Various], 5984
Verlaine, L., 5902
Versluys, J., 5810
Vertes, J. O., 6177
Vogelsang, H., 6058
Volkelt, H., 5759
Volkovich, V. A., 5882
Volshonok, O. S., 5845

Wallin, J. E. W., 5985, 6127
Walls, G. L., 5811
Walton, W. E., 6178
Walton, W. R., 5903
Wang, G.-H., 5812, 5847
Wang, W.-Y., 5906
Ward, P. W., 6128
Wäre, M., 5813
Warner, G. W., 5760
Watson, W. F., 6084
Weber, A., 6179
Weiss, L. A., 6180
Wellman, B., 6170
Wembridge, E. R., 5761
West, P. V., 6113
Wever, E. G., 5814
Wheeler, W. M., 5904
Whorley, K. S., 6181
Wile, I. S., 6129
Willemse, W., 5986
Williams, E. J., 6182
Williams, H. M., 6183
Wilska, A., 5813
Wilson, P. T., 5909
Wiltshire, H., 6184
Winsor, C. P., 5765
Witty, P. A., 6130
Woitas, E., 5887
Wonderlic, E. F., 6083, 6134
Woolston, H., 6059

Yasuda, K., 5881
Yoshida, E., 5881

Zartman, E. N., 5883
Zaur, I. S., 5807
Zilboorg, G., 5987
Zitting, E., 5815
Zollinger, R., 5848
Zubin, J., 6135
Zullinger, H., 5938
Zwilling, E., 5849

PSYCHOLOGICAL ABSTRACTS

Vol. VIII, No. 12 December, 1934

GENERAL

5730. [Anon.] **The National Academy of Sciences: presentation of medals and honoraria.** *Science*, 1934, **79**, 553.—The address on the occasion of the presentation of the Daniel Giraud Elliott Medal and Honorarium for 1930 to George Ellett Coghill.—*P. Seckler* (Radcliffe).

5731. **Beck, S. J. European news letter.** *Amer. J. Orthopsychiat.*, 1934, **4**, 422–428.—This letter contains comments upon the Viennese group and their activities: the Bühlers and their home investigation project, the Klinik Edward Lazar für Heilpädagogik, the clinic for mental patients (Klinik Pötzl), the experimental classes of Birnbaum and Spiel, and the Freudian group.—*H. Peak* (Randolph-Macon).

5732. **Butler, J. R. Human nature; guide to its understanding.** New York: Greenberg, 1934. Pp. 174. $2.00.—(Not seen).

5733. **Chung, L. C.** [**A comparative study of modern schools of psychology.**] *Nation* (Chinese), 1934, **2**, 1061–1078.—The author gives a brief account and appraisal of each of the contemporary schools of psychology, viz., structuralism, functionalism, behaviorism, purposive psychology, psychoanalysis, and the Gestalt school. A tabulation of the leading psychologists, subject matter, method of study, and characteristic features of these schools is given.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5734. **Culler, E., Finch, G., & Girden, E. Apparatus for motor conditioning in cats.** *Science*, 1934, **79**, 525.—A simple, convenient apparatus for motor conditioning in cats and other small animals, consisting of four grills set in a fan-wise arrangement and separated from each other by barriers, is described. Both auditory and visual conditioning can be effected in this apparatus.—*P. Seckler* (Radcliffe).

5735. **Dekking, H. M. Color photography of the eye.** *Arch. Ophth.*, 1934, **11**, 225–228.—Description of a simple apparatus for making color photographs of the anterior segment of the eye with Agfacolor plates, threefold magnification, 0.08 second exposure.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5736. **De Laguna, T. Notes on the theory of ideas.** *Phil. Rev.*, 1934, **43**, 443–470.—Each age views Plato from the standpoint of its own preoccupations. "Symbolic" logic has opened our eyes to much in the *Dialogues* that formerly seemed mysterious or perverse. Plato's "theory of ideas" is a well-connected body of doctrines. It assumes that ideas exist and are the objects of knowledge but have no exact exemplification in nature, and are distinct from the things which would ordinarily be held to embody them. The Platonic idea is a universal supposed precisely and unqualifiedly to characterize itself. Plato never makes it clear whether or not good and God are identical. Divine philosophy, if not impossible to attain, is for him incommunicable by any formal expression. The nineteenth century came to regard the neo-Platonists as little more than perverters, but the late Theodore de Laguna saw a great deal of the neo-Platonist in Plato himself.—*M. F. Martin* (West Springfield, Mass.)

5737. **De Sanctis, S. Delle cosiddette "reazioni" in caratterologia e psichiatria.** (Concerning so-called reactions in characterology and psychiatry.) *Riv. di psicol.*, 1934, **30**, 65–77.—The author objects to a psychology that seeks to reduce the vital dynamism that accompanies all mental activity to the reflex act and tries to distinguish in practical psychiatry the symptoms of reaction from other symptoms that do not show clearly their reactive origin.—*T. M. Abel* (Sarah Lawrence).

5738. **Feldman, J. B. Instrument for determining course of dark adaptation and for measuring minimum light threshold.** *Arch. Ophth.*, 1934, **12**, 81–85.—An instrument is described in which illumination on a test field subtending an angle of 30° can be varied from 1 to 500000 millilamberts by means of an iris diaphragm and neutral filters.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5739. **Ferguson, H. H. Locke's theory of knowledge, II.** *Australas. J. Phil. & Psychol.*, 1934, **12**, 186–198.—Locke's processes of compounding, comparing, and abstracting are fundamentally misconceived. Locke has to assume general ideas in explaining the particular ideas that are supposed to be primary. He is consequently unable to solve his main problem as to how we come by our ideas. In regard to complex ideas, which are said to come under modes, substances, and relations, Locke's atomistic conception either fails or has to assume a prior notion of wholes. This fault extends to the core of his theory of knowledge; and because his view of causality is incomplete, his definition of probability is arbitrary.—*H. D. Spoerl* (St. Johnsbury, Vt.)

5740. **Ferree, C. E., & Rand, G. Lamp for determination and measurement of the preferred intensity of light for reading and for other work.** *Arch. Ophth.*, 1934, **12**, 45–59.—After pointing out the ways in which increased illumination aids clear vision, particularly in the case of older eyes, the authors describe a portable lamp affording illumination variable through a wide range of intensities and designed to facilitate determination of the optimum illumination for any individual under his working conditions. Additional uses for this unit are also suggested.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5741. **Fischer, A. Erich Bechers Entwicklung und Stellung in der Philosophie der Gegenwart.** (E. Becher's development and place in the philosophy of the present.) In: *Erich Becher. Deutsche Philosophen.* Munich, Leipzig: Dunker & Humblot, 1929.—Fischer conceives of Becher's life work as of a striving towards a critically founded metaphysics by preference built upon the basis of a group of empirical sciences and nourished by experiences from within the ethical social sphere.—*W. Reitz* (Chicago).

5742. **Fuller, B. A. G. "To sleep, perchance to dream."** *J. Phil.*, 1934, **31**, 393–400.—Reality, according to certain types of idealism, consists of self-conscious minds and their contents. But self-consciousness, "far from being the essence of the Real, looks like an intermittent and fitful accident, maintained under special conditions, and enjoying at the best no more than a precarious hold upon existence." It is continually interrupted by sleep and other lapses. In such cases it is small comfort to be reminded that we are contents of God's mind, for so too are inanimate things. Nor does it help to fall back on dreams to provide continuity. Often we do not appear to dream at all; and if we do dream either the dreaming is forgotten completely and forms no part of our self-conscious life, or it is remembered as a sort of dissociated, alien self. It seems strange too, that a being whose essence is supposed to be self-consciousness should be one "to whose mortal existence nothing could be more damaging and in the end more fatal than the uninterrupted exercise of its essential function."—*E. T. Mitchell* (Cincinnati).

5743. **Guthrie, C. C. Physiologic lensless spectacles.** *Arch. Ophth.*, 1934, **11**, 254–261.—Several patterns of perforated disks are described which operate on the principle of the pinhole camera to give the ametropic eye clear vision through an extensive range.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5744. **Hartog, A. H. de. Actueel en ideëel.** (Actuality and ideality.) *Nederl. tijdsch. v. psychol.*, 1934, **2**, 61–76.—*C. Koster* (Huntington).

5745. **Kao, K. F. [Subjective atomistic psychology.]** *East. Miscel.* (Chinese), 1934, **31**, No. 10, 12–20.—According to the author, psychologies which consider experience or behavior as analyzable into simple elements are atomistic in nature. The elements of experience have been held to be sensations or images and feelings; those of behavior, reflexes or partial movements. The former school may be called subjective atomistic psychology and the latter objective atomistic psychology. This paper gives a historical description primarily of Wundtian and Titchenerian subjective atomistic psychology or structuralism. Titchener's atomistic psychology, although it can well meet the criticisms of the Würzburg school and the school of Gestaltqualität, has lost much of its influence under the fatal attacks launched by Köhler and Koffka, the Gestalt psychologists.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5746. **Kao, K. F. [Objective atomistic psychology.]** *J. Educ. Res.* (Chinese), 1934, **13**, No. 4, 9–23.—According to the author, the objective atomistic psychology or behaviorism which analyzes behavior into reflexes has met with deadly attacks from the experimental findings of (1) Gestalt (Koffka), (2) physiological (Lashley), and (3) embryological or developmental (Coghill, Angulo y Gonzalez, Minkowski) studies. The assumption of the reflex as a behavior unit and the concept of reflex arcs have almost been shaken into pieces.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5747. **Landon, R. H., & Brierley, W. G. An apparatus for the measurement of respiratory rate.** *Science*, 1934, **79**, 75.—*P. Seckler* (Radcliffe).

5748. **Macdonald, J. Some new aspects of an old problem.** *Phil. Rev.*, 1934, **43**, 501–512.—The distinction between spiritual and material satisfactions requires restatement, because modern psychology regards the individual as a unitary object, not divided into mind and body. Every emotion is in the last analysis a fact of sensation. A materialistic satisfaction is one which follows automatically upon the application of a specific stimulus. In spiritual enjoyment, the object is a function of activity, and it drops out of existence when the activity ceases. Highest in ethical value are those spiritual satisfactions which foster cooperative or reinforcing spiritual satisfactions in others. Oriental spirituality is ethically deficient in failing to disseminate its satisfactions broadly. In western civilization, a relatively small group is engaged in the highly spiritual work of mastering the material environment, but the returns to the majority are mainly material. Competition generates a kind of spirituality that is destructive.—*M. F. Martin* (West Springfield, Mass.)

5749. **Marshall, C. A head clamp for operating on cats.** *Science*, 1934, **80**, 17–18.—*P. Seckler* (Radcliffe).

5750. **Moorhead, D. F., & Neild, H. W. A simple method for increasing the amplification of the Marey tambour.** *Science*, 1934, **80**, 18.—*P. Seckler* (Radcliffe).

5751. **Murchison, C. [Ed.] A handbook of general experimental psychology.** Worcester, Mass.: Clark University Press, 1934. Pp. xii + 1125. $6.00.—This book is much more than a revision of the *Foundations of Experimental Psychology* which was issued by the same editor in 1929. The major divisions of that book have been revised under the headings *A Handbook of Child Psychology*, which has already appeared, the present volume, and *A Handbook of Social Psychology*, which is to appear later. The present volume is divided into two parts: I. The Adjustive Processes, and II. The Receptive Processes. There are twelve chapters in the first part and eight in the second. Chapters are written by the following: H. Banister, P. Bard, W. B. Cannon, W. J. Crozier, H. Davis, J. G. Dusser de Barenne, A. Forbes, C. H. Graham, H. Hartridge, S. Hecht, H. Hoagland, C. L. Hull, W. S. Hunter, C. Landis, K. S. Lashley, T. H. Morgan, J. P. Nafe, E. S. Robinson, C. P. Stone, L. T. Troland. Each of these chapters is abstracted separately.—*L. Carmichael* (Brown).

5752. **Peirce, C. S. Collected papers, vol. IV: the simplest mathematics.** (Ed. by C. Hartshorne and P. Weiss.) Cambridge: Harvard Univ. Press, 1933. Pp. 601. $6.00.—This volume is organized into three books. The first contains a great number of papers on exact logic and the foundations of mathematics which Peirce never offered to publishers, but many of which the editors of the *Papers* judge to be advances on his published works. Book Two contains Peirce's logical graphs, which, as the editors point out, were considered by him to provide a more detailed and satisfactory analysis of the structure of logical argument than is permitted by previous symbolisms or the traditional Eulerian diagrams. As he treats these graphs, according to the editors, "they are pertinent to discussions on the nature of mathematics, multiple-valued logics and modality, as well as to his theory of pragmaticism." Book Three contains Peirce's last projected series of papers. These serve to illustrate fundamental theorems in logic and mathematics. Two papers, perhaps of most interest to the general reader, appear in the first book. The first paper, *The Essence of Reasoning*, contains some notes on the historical development of logic, the nature and classification of propositions, and the nature of inference. The second paper, *The Simplest Mathematics*, considers the nature of mathematics, the different points of view of the mathematician and the logician (Peirce does not hold that mathematics is a branch of logic), and certain simple branches of mathematics which are of especial interest to students of logic.—*C. B. Shaw* (Boston University).

5753. **Rothschild, R. Reality and illusion.** New York: Harcourt, Brace, 1934. Pp. 429.—This is an attempt to offer a comprehensive philosophy of nature, life, and value for "the modern man," confronted as he is by the doubts and confusions that result from an over-emphasis on the quantitative method in his tradition of thinking and from ruling out as unreal and illusory all that does not conform to the requirements of the measurables of physics. The text is divided into seven sections discussing the grasp of reality, ethics, religion, the arts, politics, mathematics and the problems of science, and the quest of happiness. The writer adopts the point of view of absolute idealism with a moral and esthetic emphasis. "Whatever a reality is, it must always represent a synthetic unity, an organization of minutiae which transcends the minutiae themselves in the same sense in which the reality of a water molecule transcends the reality of the component oxygen and hydrogen atoms." The author attempts to popularize the chief doctrines familiar in the writings of the neo-Hegelians: the individual as self-creating and self-realizing, the distinction between various kinds of selves and accordingly a postulation of a hierarchy of being, the self as a microcosm and a reflection of an absolute unitary reality, degrees of reality and illusion, as well as the degrees of truth and error. The world of reality is constructed by the individual through his own will or the creative process of synthesizing fleeting elements of experience into wholes. "Only if syntheses are infinite in scope may they be said to be absolutely real. All other syntheses . . . are merely relatively or tentatively real."—*C. B. Shaw* (Boston University).

5754. **Soskin, S. A simple ergograph.** *Science*, 1934, **79**, 593–594.—*P. Seckler* (Radcliffe).

5755. **Speier, H. [Sec.] Social research: an international quarterly of political and social science.** New York: New School for Social Research. Vol. 1, No. 1, February 1934.—*R. R. Willoughby* (Clark).

5756. **Spring, W. J. A critical consideration of Bernfeld and Feitelberg's theory of psychic energy.** *Psychoanal. Quar.*, 1934, **3**, 445–473.—The theory of Bernfeld and Feitelberg comprises an attempt to apply to psychic phenomena the concept of energy and to explain them in terms of displacement of energy in the physical sense of the word. The theory assumes that only part of the energies of the cells are used for the individual as a whole, and the remainder is used by the cells for their own purposes. The phenomenon of sensation consists of a passage of energy from a stimulus into the person. There follows a mathematical consideration of the Weber-Fechner law and of these formulations.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5757. **Strong, C. A. A plea for substantialism in psychology.** *J. Phil.*, 1934, **31**, 309–328.—Substantialism maintains the reality of things, of self, and of reference. Dualism maintains that these are distinct from data. Data are generated by the action of real things on the real brain. The same sensori-motor act which generates data involves automatic reference; e.g., turning, converging, and focusing the eyes on the object give us its direction, distance, etc. The function of data is to depict the real object; the function of reference is to locate it externally in space and time. We do not refer by conceiving, since we perceive particulars before we have concepts. Nor are data "mental existences" (Lovejoy), but "apparents" inseparable from the act. Neither the color nor the space of such apparents are identical with the qualities of the real object. The data of memory and imagination, similarly, are not in real time. Substantialism allows one to carry dualism consistently throughout.—*E. T. Mitchell* (Cincinnati).

5758. **Van der Horst, L. Lessen in de hedendaagsche psychologie III.** (Third lesson in every-day psychology.) *Nederl. tijdsch. v. psychol.*, 1934, **2**, 27–41.—*C. Koster* (Huntington).

5759. **Volkelt, H. Einige neue Methoden der Verhaltensbeobachtung und Protokollierung.** (Several new methods for observation of behavior and for recording.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 230–240.—The author deplores the lack of accuracy in much psychological experimentation and enumerates lines along which more exact findings are to be hoped for. He does not believe, as do some, that the limit of psychological experimentation has been reached. He cites the difficulty of both introspection and observation of psychological processes as methods of approach and recommends large use of stereoscopic and moving films and of mirror adjustments making observation from varying angles possible. He em-

phasizes the necessity for more careful records in connection with such films for later study, and for time agreement of record and film he has invented a mechanism for recording. An experiment concerning a child building with blocks is reviewed, the article carrying illustrations.—*A. B. Herrig* (Michigan Central State Teachers College).

5760. **Warner, G. W. The small linear units.** *Science*, 1934, **79**, 590–591.—A discussion of the definitions of and the symbols for the small linear units.—*P. Seckler* (Radcliffe).

5761. **Wembridge, E. R. What is psychology?** *Person. J.*, 1934, **13**, 106–111.—The author deplores the apathy of academic psychology toward human behavior in the raw. She stresses the need for a practical training, designed to meet real problems of human behavior and mental maladjustment.—*R. Smith* (Clark).

[**See also abstracts 5774, 5797, 5806, 6054.**]

SENSATION AND PERCEPTION

5762. **Adie, W. J. Some common ocular symptoms.** *Practitioner*, 1934, (May).—Inasmuch as few of the signs and symptoms encountered in daily work are free from ambiguity the author discusses the important characteristics of the following ocular conditions: (1) Argyll-Robertson pupils (preferably termed "pupils peculiar to syphilis"); (2) the tonic pupil; (3) anisocoria, or inequality of the pupils; (4) nystagmus; (5) ocular palsies.—*R. J. Beitel, Jr.* (Clark).

5763. **Adler, F. H. Problems in the physiology of visual acuity.** *Arch. Ophth.*, 1934, **11**, 6–19.—A discussion of the physiological factors determining visual acuity. Data concerning the minimum visible, the minimum separable, and the aligning power of the eye are related to the known facts about the size and distribution of the retinal elements and the frequency and extent of eye movements. Relevant theories are discussed briefly.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5764. **Aliquo-Mazzei, —. Segno di Argyll-Robertson unilaterale consecutivo a traumatismo cranico.** (Unilateral Argyll-Robertson pupil after cranial injury.) *Lett. oftal.*, 1934, (May).—Unilateral Argyll-Robertson pupil has been recorded on several occasions after wounds during the war. Its pathogenesis is not well understood, though this is scarcely to be wondered at since the paths of the normal reflex are not yet known with certainty. After enumerating the various theories on this point, the author sums up what is generally accepted. It is not clear where the lesions are situated which have given rise to this phenomenon in the cases alluded to. The author records a case in which a fracture of the parietal bone was accompanied by paralysis of the facial, and by an Argyll-Robertson pupil of the opposite side. Having excluded all diseases capable of giving rise to this symptom, he concludes that it is due to injury by *contre-coup* of the facial and of the pupillo-motor fibers in the trunk of the third nerve.—*R. J. Beitel, Jr.* (Clark).

5765. **Arnold, W. On the theoretical significance of Talbot's law.** *J. Gen. Physiol.*, 1934, **17**, 97–101.—It is shown that Talbot's law has as a necessary consequence that the velocity of the light-sensitive process must be proportional to the intensity of the stimulating light.—*C. H. Graham* (Clark).

5766. **Banister, H. Audition: I. Auditory phenomena and their stimulus correlations.** In *A Handbook of General Experimental Psychology.* Worcester, Mass.: Clark University Press, 1934. Pp. 880–923.—After a brief review of the physics of sound, the author turns to the problem of audition in relation to "pure tones." In this section tone, tone character, pitch, loudness, and various auditory limens are considered. Special phenomena of compound tones and noise are next treated. A section is then devoted to beats, combination tones, consonance and dissonance. Finally, the auditory perception of space, speech, deafness, and fatigue and noise are briefly considered. A bibliography of 75 titles is appended.—*L. Carmichael* (Brown).

5767. **Bender, L., & Schilder, P. Streuung und Reihenverminderung im sensiblen Abbau.** (Variability and series diminution in sensory decay.) *Dtsch. Zsch. f. Nervenhk.*, 1933, **129**, 146–154.—(*Biol. Abst.* VIII: 15453).

5768. **Brunswik, E. Wahrnehmung und Gegenstandswelt.** (Perception and the world of objects.) Leipzig: Deuticke, 1934. Pp. 244. RM. 14.—If w = the objective world of physical dimensions, p = the physiological events of perceptual experience, and s = the seeming or apparent properties of the experienced objects, then in most if not all cases the value of s will fall somewhere between those of w and p. The total apparatus of perception is engaged in the process of transforming total stimulus conditions into s-values. In its operations, however, the perceptual system (like those of instincts and drill) is strikingly unmodifiable. It has its own norms or "criteria" and can be changed only by numerous drill repetitions. Stratton's experiments with inverting lenses are cited as an example of this. The aim of perceptual psychology is to set forth a complete inventory of perceptual accomplishments. Of these the one repeatedly referred to throughout this book is that of size constancy. A typical situation: though differing greatly in both w- and p-values, two lines, 5 and 6 cm. in length, will be of equal s-value if the latter is seen several meters behind the former. The book contains frequent references to Karl Bühler, to whom it is also dedicated.—*W. D. Ellis* (Massachusetts State).

5769. **Castle, E. S. The phototropic effect of polarized light.** *J. Gen. Physiol.*, 1934, **17**, 751–762.—A difference in the phototropic effect of light is described for the cell of *Phycomyces* which depends on the plane of polarization of the acting light with reference to the axis of the cell. The magnitude of the effect observed is deducible from a consideration of the theory of phototropism advanced by the author.—*C. H. Graham* (Clark).

5770. **Cook, T. W. Binocular and monocular relations in foveal dark adaptation.** *Psychol. Monog.*, 1934, **45**, No. 3. Pp. 86.—A study was made of the increase in retinal sensitivity to absolute brightness which occurred during a period of removal of all light stimulation. The specific aim was to discover the presence or absence of binocular summation, and a sharp distinction was made between adaptation within and without the fovea. Only the existence or non-existence of foveal summation was studied. Fixation was controlled by the use of four luminous spots lying just within the margin of a visual field bounded by an artificial pupil. Foveal dark adaptation with right eye, left eye, and binocular observation was investigated for an interval of 10 min. (4 subjects) and 15 min. (5 subjects) after the cessation of light adaptation. A more intensive study was made (2 subjects) of the first 30 sec. of dark adaptation. 4 subjects were tested monocularly during 1 hour of dark adaptation. For 3 subjects the average monocular thresholds after binocular light adaptation were about 50% higher than the binocular thresholds. Differences between left and right eye thresholds were comparatively slight. 2 of the 3 subjects in this group worked in all variations of the experiment. For 3 subjects the binocular thresholds approximated those of the more sensitive eye. Monocular thresholds were lower after binocular light adaptation than after monocular light adaptation. The difference was most marked at the beginning of dark adaptation, and was no longer present after 4 to 10 min. in darkness. Light adaptation for 3 min. gave decidedly higher succeeding thresholds than 1 min. light adaptation. Foveal dark adaptation was rapid for the first 30 sec. and slower thereafter. With 3 subjects foveal dark adaptation continued for 50 to 60 min. after 3 min. light adaptation, with 1 subject for 20 to 25 min.—*H. Cason* (Wisconsin).

5771. **Crozier, W. J. Chemoreception.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 987–1036.—In this chapter the receptor mechanisms of smell, taste, and the common chemical sense are discussed. After a general consideration of the nature of stimulation, the special phenomena of olfaction are treated. The common chemical sense and taste are next dealt with. In the discussion of taste the chemical nature of the stimulus in relation to the physiological processes of the sense is given in detail. A bibliography of 139 titles is appended.—*L. Carmichael* (Brown).

5772. **Darling, E. F. On improving vision.** *Med. Rec.*, 1934, **140**, 234–236.—The writer has developed his own technique for improving vision. He describes his own experience in improving his own sight. He points out that factors affecting general health must be corrected first. Also it is necessary that mental strain be removed. The general technique used in this form of treatment is to teach the patient how to use his eyes without strain. A description of the procedure is given. His greatest success with this method is obtained with myopic patients. Certain classes of hyperopes do not respond as well. Children respond very quickly to the training.—*L. S. Selling* (Eloise Hospital).

5773. **Davis, H. Audition: III. The physiological phenomena of audition.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 962–986.—This chapter outlines the information which has been obtained by electrical methods during recent years concerning the function of the auditory mechanism, and especially in the study of the Wever-Bray effect. The anatomy of the auditory mechanism, especially in its central connections, is first presented. The characteristics of the electrical phenomena at various levels of this mechanism are then treated, dealing first with the cochlear response and then passing to the consideration of the action potentials of the auditory neural mechanisms up to and including that of the cortex. The significance of these findings for auditory theory is presented in conclusion. A bibliography of 39 titles is appended.—*L. Carmichael* (Brown).

5774. **Davis, R., & Gibson, K. S. Filters for producing the color of the equal-energy stimulus.** *U. S. Bur. Stand. J. Res.*, 1934, **12**, 263–267.—Spectrophotometric and colorimetric data for two filters which when combined with an illuminant at 2848K give the color of the so-called equal-energy stimulus.—*C. M. Louttit* (Indiana).

5775. **Dennis, W. Congenital cataract and unlearned behavior.** *J. Genet. Psychol.*, 1934, **44**, 340–351.—A review of the literature (35 titles) on the effects of removal of congenital cataracts offers no positive evidence of unlearned visual control, but the reports are inconsistent. It is suggested that an excellent field of research is offered in experimentally controlled observations of patients in ophthalmological hospitals.—*J. F. Dashiell* (North Carolina).

5776. **Duane, A. Anomalies of the ocular muscles. Symptoms and diagnosis, evidences of paralysis and spasm.** *Arch. Ophth.*, 1934, **11**, 394–422.—False projection, apparent movement of objects, varying diplopia, vertigo, and confused vision are discussed as subjective symptoms of ocular spasm and paralysis. Changes in the symptoms with persistence of the difficulty and associated head tilting are explained. A detailed discussion of objective tests and their diagnostic significance constitutes the main body of the paper.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5777. **Edgerton, A. E. Ocular observations and studies of the new-born with a review of the literature.** *Arch. Ophth.*, 1934, **11**, 838–867.—This paper deals mainly with the incidence and etiology of ocular pathology at birth, but some data about eye measurements are included. An extensive bibliography is appended.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5778. **Feldman, J. B. The prevalence of visual defects in children.** *Med. Rec.*, 1934, **140**, 195–196.—A census was taken to determine the prevalence of squint in children, and also to take note of other defects which could readily be found. 2322 children

were examined during a three-months period. Only 1392 had normal vision. There were 146 manifest squints and 339 latent ones. A group of 300 preschool children included 26 with vision below 20/70, and 56 had great disparity in the vision of the two eyes. In the whole number, there were 60 color-blind children, 52 males and 8 females. There were 46 cases of amblyopia—more girls than boys, more left eyes affected than right. There were more females showing manifest squint than males, and more males had latent squint than females.—*L. S. Selling* (Eloise Hospital).

5779. **Ferree, C. E., Rand, G., & Stoll, M. R. Size of stimulus in relation to the eye's sensitivity to light and to the amount and rate of dark adaptation.** *J. Exper. Psychol.*, 1934, **17**, 646–661.—"Size of stimulus is an important factor in the retina's response to colorless light for ranges of size that are apt to be used in tests for sensitivity or adaptation. All norms or diagnostic scales for either of these functions must, therefore, be compiled with a careful standardization of this factor. With reference to systematic and theoretical conceptions it is found that increase in size is effective in arousing the retina's response for both foveal and extrafoveal sizes of stimulus and under conditions of both light and dark adaptation. A satisfactory quantitative formulation of this effect has not been found to be possible. Certain tendencies, however, are shown. In light adaptation, for example, for sizes of stimulus ranging from 1° to 7° sensitivity tends to increase as the fourth root of the area of the stimulus; in dark adaptation for stimuli ranging from 3° to 15° the tendency is to vary as the square root of the area. The effect on sensitivity for the range of sizes used in our experiments is a true effect of size, not merely the inclusion of regions of greater sensitivity within the area tested."—*H. W. Karn* (Clark).

5780. **Finch, G., & Culler, E. Effects of protracted exposure to a loud tone.** *Science*, 1934, **80**, 41–42.—Criticism of the conditioned response method of investigating stimulation deafness is followed by a report of an experiment on the effects of protracted exposure to a loud tone, in which a control for possible extinction of the conditioned response is instituted. Both a continuous and an intermittent exposure tone were used. Two dogs, one under complete general anesthesia during the exposure time, were used as subjects. The following conclusions are drawn: (1) protracted stimulation by loud tones of medium pitch induces an almost horizontal subsidence in acuity over a large section of the auditory range; (2) no sign of functional restoration appears within 31 days after exposure; (3) the interrupted tone proves to be more effective than a continuous tone as a means of acoustic impairment. Three explanatory possibilities for the above results are listed.—*P. Seckler* (Radcliffe).

5781. **Follows, A. B. A study of the mistakes in color matching made by persons with defective color vision.** *J. Physiol.*, 1934, **82**, 172–179.—By presenting a colored diagram and having a color-blind subject copy it with a box of paints with which the original was colored, a study of color-blindness was made. The defect seemed to consist in a failure to distinguish "red" from the rest of the spectrum. The mistakes seem to be graded in a continuous series, showing minimum confusion in the "yellow" of the spectrum and maximum confusion in differentiating between the "green" and "red" regions.—*M. A. Rubin* (Clark).

5782. **Gasteiger, H. Zur Malariabehandlung der tabischen Sehnervenatrophie.** (On malarial treatment of tabetic atrophy of the optic nerve.) *Arch. f. Augenhk.*, 1934, **108**, 471–478.—The author reports on a series of cases of tabetic atrophy of the optic nerve, which were given malarial treatment. One portion of the cases remained stationary for a while or only gradually became worse. In five cases a rapid decline during the curative treatment was noted, and seemed to be a direct result of it. A definitely successful malarial treatment of this condition could not be demonstrated. Considering the apparently injurious results which are possible, malarial therapy cannot be recommended for tabetic impairment of the optic nerve.—*J. J. Carlson* (Aurora-on-Cayuga, New York).

5783. **Gifford, S. R., & Barth, E. E. Visual sensation produced by roentgen and radium rays.** *Arch. Ophth.*, 1934, **11**, 81–91.—This paper reviews earlier observations on the visibility for the dark-adapted eye of roentgen and radium rays and adds further data to clarify disputed points. It is shown that smaller objects may be recognized by means of the roentgen-ray illumination, but that the corresponding retinal images are much larger than those of the smallest objects visible under normal conditions. The indication is that the sensation is due to a direct photochemical effect on the rods.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5784. **Goodfellow, L. D. Experiments on the senses of touch and vibration.** *J. Acous. Soc. Amer.*, 1934, **6**, 45–50.—Using the Gault teletactor, an instrument which transforms sound vibrations into tactile ones for the deaf, the author reports: that the sensitivity of the finger tips to tactile vibrations is greater for the lower frequencies; that the tactile sensitivity varies over the body; that there is little relationship between an individual's sensitivity and his ability to interpret correctly speech sounds with the teletactor; that the vibration sense is probably more important than the tactile sense in the use of the teletactor for the interpretation of speech; and that with training some individuals have considerable success in hearing with the teletactor.—*P. E. Huston* (Worcester State Hospital).

5785. **Graham, C. H. Vision: III. Some neural correlations.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 829–879.—This chapter is largely devoted to a consideration of those electrical phenomena of the photoreceptive mechanism which are functions of light stimulation. The nature of the discharge in a single fiber is first treated, and then the characteristics of optic-nerve activity and of the

retinal potential are discussed in detail. The physiological as contrasted with the "localization" problems of the central-nervous-system phenomena of vision are next considered and the newest work on the electrical phenomena associated with activity of the visual cortex is briefly summarized. A bibliography of 127 titles is given.—*L. Carmichael* (Brown).

5786. **Guiber, G. P. Some possibilities of orthoptic training. A comparative study of a control group and a treated group of patients with squint, with remarks concerning the technic used in orthoptic training.** *Arch. Ophth.*, 1934, **11**, 433–461.—A critical bibliography of earlier work is followed by a detailed analytical description of the examination and course of training in fusion and depth perception. Statistical data indicate the success of this training with patients of different ages and varying degrees of deviation.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5787. **Guttman, J., & Barrera, S. E. Persistence of cochlear electrical disturbance on auditory stimulation in the presence of cochlear ganglion degeneration.** *Amer. J. Physiol.*, 1934, **109**, 704–708.—"Section of the 8th nerve intracranially was performed in a series of cats. After various survival periods following section of the 8th nerve, animals were studied to determine the presence of the cochlear response to sound stimulation. The active electrode was placed directly on the bony structure of the cochlea. The recording apparatus used was a two-electrode three-stage amplifying set-up. Serial sections of each of the cochleae and the brain were studied in each of the animals. In animals surviving section of the nerve for six weeks, serial section study revealed a complete degeneration of the cochlear ganglia with the nerve elements and efferent nerve fibers. In every case following section of the nerve, even in cases which revealed complete cochlear ganglia degeneration on serial section, the cochlear response, when led off from the cochlea, was found to be unchanged, in so far as our type of apparatus might be expected to reveal changes. Since the cochlear response persisted even after the complete degeneration of the nerve elements in the cochlear ganglia, it would seem that nervous elements in the cochlea, at least in the ganglia, play little if any role in the production of the cochlear response. The experiments reported in this paper throw no light on the question as to the living tissue or non-living structure origin of the response."—*C. Landis* (N. Y. Psychiatric Institute).

5788. **Hallpike, C. S., & Rawdon-Smith, A. F. The "Wever and Bray phenomenon." A study of the electrical response in the cochlea with especial reference to its origin.** *J. Physiol.*, 1934, **81**, 395–408.—The authors present experimental evidence upon the following points: (1) Cessation of the effect is due to concomitant severance of the internal auditory artery. (2) There are good insulating properties of the bony capsule of the internal ear, and the responses from the apical and basal parts of the interior of the cochlea show marked differentiation for frequency (the low tone response being accentuated at the apex, and the high tone response at the base); this constitutes strong direct evidence in favor of the hypothesis that the cochlear elements are differentially tuned. (3) The highly sinusoidal nature and serial uniformity of the cochlear response over certain frequency ranges are indicated. (4) Application of sodium chloride crystals to the round window membrane causes an even more rapid disappearance of the response than application of cocaine crystals. (5) Following death, the response displays a parallel decrement for high and low frequencies. After considering present hypotheses, the authors advance an alternative suggestion based upon the probable presence in the cochlea of a polarized membrane.—*M. A. Rubin* (Clark).

5789. **Hartridge, H. Audition: II. Theories of hearing.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 924–961.—In this chapter the known facts in regard to the morphology of the ear are first reviewed, and then the various theories of the operation of these anatomically described structures are considered. The telephone, sound-pattern, sound-wave, volley, and resonance hypotheses of hearing are reviewed briefly and the physiological evidence bearing upon such theories is summarized. The resonance hypothesis is then restated and the evidence in favor of this theory presented in detail. A bibliography of 53 titles is appended.—*L. Carmichael* (Brown).

5790. **Hecht, S. Vision: II. The nature of the photoreceptor process.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 704–828.—After a general consideration of the present status of Müller's doctrine of specific qualities the author turns to a detailed analysis of the photoreceptive processes. Threshold relationships, the duality of sensory process, dark and light adaptation in their physiological bases and in the special conditions of the eye are in turn considered. An elaborate consideration of the physiological factors underlying Talbot's law is given, as is a treatment of the present status of knowledge in regard to chemical light-sensitive substances in living tissues. Intensity discrimination, visual acuity and illumination in relation to the physiology of the receptor process, and the facts and theories of color vision are all treated in some detail. A bibliography of 210 titles is appended.—*L. Carmichael* (Brown).

5791. **Holland, B. F. Speed and pressure factors in braille reading.** *Teach. Forum (Blind)*, 1934, **4**, 13–17.—The author discusses the amount of time required to read a given unit of material, and the pressure exerted by the fingers in moving over the type. The experimental work includes pressure measurements, timing, and kymographic recording. The reading material is from standardized tests. The subjects include 17 slow and fast readers in grades 4 to 10 in a school for the blind. The first table shows average time and pressure per line for slow and fast readers; the faster readers use less pressure than the slower readers; there was a small positive correlation

between speed and pressure. Table II shows average pressure at beginning, middle and end of lines; the average difference in pressure is about twice as great for the slow as for the fast readers; slower subjects seem to increase pressure as they read. Table III gives average time and average difference between pressure at the beginning and end of the line for fast and slow readers. Slow readers seem to experience greater difficulty in interpretation. Pressure increases with the difficulty in reading. Lack of pressure changes in good readers suggests absence of excessive difficulty, and therefore greater conservation of nervous energy. The data suggest the advisability of developing a habit of touching braille lightly, because of the destructibility of the reading matter by strong pressure, and in view of the fact that the better readers exert less pressure generally.—*S. S. Hawk* (Univ. Southern California).

5792. **Huber, K. Die Vokalmischung und das Qualitätensystem der Vokale.** (The blending of vowel sounds and the quality system of vowels.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 154–199.—This is a study to discover whether the ear hears two vowels given simultaneously as one sound or as separate sounds. The author finds that two tones blend into one which is indivisible and which differs from either of the entering tones. He finds a parallelism with color mixture, tone, like color, being recognized as a new phenomenon. Further discussion leads into the problem of a tone quality sequence comparable with the color quality sequence of the spectrum, each step a pure tone as is each color step in the system. The study proceeds from the discovery of these tones arising from mixtures of two tones, embodying over 700 trials. The article analyzes the effect of intensity on tone quality when the two are combined. He compares his findings with those of other investigators in the field.—*A. B. Herrig* (Michigan Central State Teachers College).

5793. **Jaensch, P. A. Klinische Beiträge zur Frage des Vorkommens gesondeter pupillomotorischer Fasern im Sehnerven.** (Clinical contribution to the question of the presence of distinct pupillomotor fibers in the optic nerve.) *Zsch. f. Augenhk.*, 1933, **81**, 35 ff.—Jaensch describes 12 cases seen during the last 10 years in Bielschowsky's clinic bearing on the question whether pupillomotor fibers are distinct from sensory fibers in the optic nerve. In four cases there was rigidity of the pupils in spite of good central vision; reaction to light was maintained in three cases in spite of blindness due to injury of the optic nerve, and in five cases of blindness due to tumor or organic disease. The author concludes in favor of distinct sets of fibers, but leaves open the question whether the motor fibers are modified sensory fibers (Behr) or of a totally different structure. He also holds that the pupillo-motor fibers are more resistant than the sensory fibers.—(Courtesy *Brit. J. Ophth.*)

5794. **Josephson, E. M. Progressive deafness.** *Science*, 1934, **80**, 337–338.—A brief discussion of the pathology, neurologic signs, and treatment of progressive deafness.—*P. Seckler* (Hartford, Conn.)

5795. **Lemon, H. B., & Schlesinger, H. I. Sound; a guide for use with the educational sound pictures "Sound Waves and Their Sources" and "Fundamentals of Acoustics."** Chicago: Univ. Chicago Press, 1934. Pp. 42. $.35.—*R. R. Willoughby* (Clark).

5796. **Lippay, F., & Patzl, H. Über die Abhängigkeit der Unterschiedsempfindlichkeit des Kraftsinnes von der Grösse des tätigen Muskelquerschnittes. Ein Beitrag zur Theorie des Kraftempfindungen.** (The dependence of the differential sensivity of the kinesthetic sense upon the area of the cross-section of the active muscle.) *Pflüg. Arch. f. d. ges. Physiol.*, 1933, **231**, 588–598.—(*Biol. Abst.* VIII: 15547).

5797. **Machener, H. Beiträge zur Physiologie und Pathologie der Pupille.** (Contribution to the physiology and pathology of the pupil.) *Klin. Monatsbl. f. Augenhk.*, 1933, **91**, 302 ff.—Machener reviews the literature on the optical apparatus employed in the measurement of the pupil and describes an instrument of his own based on cinema-photographic principles. The apparatus allows the taking of sharp pictures of one or both pupils at the rate of 8 to 90 per second. Magnification for more detailed study is possible. The limit of error for the instrument is given as 0.005 mm. and 0.01 second. The instrument is of value in the analysis of iris movement under physiological conditions, of the direct and consensual reactions in the illuminated and non-illuminated phases, the convergence reaction, pupillary unrest, and the study of summation of effects.—(Courtesy *Brit. J. Ophth.*)

5798. **Nafe, J. P. The pressure, pain, and temperature senses.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 1037–1087.—After a preliminary analysis of the problem of skin sensitivity, the nature of nerve discharge initiated on the cutaneous surface is considered in the introduction to the chapter. The problem of the relationship between quality and the end organs of the skin is treated. The possible significance of peripheral blood vessels in the physiological mechanism of the skin senses is next discussed as a preliminary to a review of the special problems embraced in the temperature senses. The pressure and pain senses are treated in detail. The problems of epicritic and protopathic sensitivity, the effects of drugs on the skin senses, and the kinesthetic and visceral senses are also discussed. Finally, a quantitative theory of feeling is presented. A bibliography of 211 titles is appended.—*L. Carmichael* (Brown).

5799. **Parr, L. W. Taste blindness and race.** *J. Hered.*, 1934, **25**, 186–190.—Taste blindness for phenyl-thio-carbamide is reported for groups in the following races: Chinese, Indian, negro, Egyptian, Jewish, Armenian, Semenite, Arab, control whites. The proportion of "bitter tasters" varies from 94% of the Chinese to 63.5% of the Arabs.—*B. S. Burks* (California).

5800. **Parvulescu, V. Contribution à l'étude de la physiologie de l'appareil visuel de l'homme.** (Con-

tribution to the study of the physiology of the visual apparatus in man.) *Bul. Acad. Inalte Stud. Agron. Cluj*, 1930, **1**, 58–62.—(*Biol. Abst.* VIII: 15437).

5801. **Pascal, J. I. Calculating stereoscopic vergence.** *Arch. Ophth.*, 1934, **11**, 807–813.—An equation is derived for quickly determining the degree of divergence or convergence of the eyes when the stereoscope is used: degree of vergence = prism strength of stereoscope $+ \frac{100 \text{ (P.D.} - \text{distance apart of objects)}}{\text{distance of chart from eye}}$; measurements are in centimeters.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5802. **Posthumus Meyjes, F. E. Experimenteel-anatomisch onderzoek omtrent het centrale acustische stelsel.** (Experimental-anatomical research on the central acoustic system.) Amsterdam: Portielje, 1932. Pp. 107.—(*Biol. Abst.* VIII: 15513).

5803. **Riesz, R. R. Differential intensity sensitivity of the ear for pure tone.** *Phys. Rev.*, 1928, **31**, 867–875.—(*Biol. Abst.* VIII: 15439).

5804. **Robertson, C. S. Measurement of the speed of adjustment of the eye to near and far vision.** *U. S. Naval Med. Bull.*, 1934, **32**, 275–283.—Data on speed of accommodation of a small group of aviators and midshipmen are presented as an illustration of the use of this measurement in testing aviators.—*C. M. Loutlit* (Indiana).

5805. **Spaeth, E. B. Clinical determination of the light threshold.** *Arch. Ophth.*, 1934, **11**, 462–485.—Light-proof goggles with sliding prisms were used for dark adaptation and subsequent determination of the light minimum. Data, recorded in arbitrary units, indicate the relative increase in light minimum associated with various pathological conditions.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5806. **Steinberg, J. C. Application of sound measuring instruments to the study of phonetic problems.** *J. Acous. Soc. Amer.*, 1934, **6**, 16–24.—From oscillograph records an analysis of the sound waves produced during the speaking of the sentence "Joe took father's shoe bench out" was made, illustrating how variations in r.m.s. amplitude of the wave, frequency of the voice fundamental, and frequency of overtones can be studied.—*P. E. Huston* (Worcester State Hospital).

5807. **Stone, L. S., Zaur, I. S., & Farthing, T. E. Grafted eyes of adult *Triturus viridescens* with special reference to repeated return of vision.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 1082–1084.—Following the reimplantation and transplantation of the eyes in the orbit in adult salamanders, the following observations were made: (1) reduction in the size of the eye; (2) return of circulation in the superficial vessels of the iris within the first week after operation; (3) opacity of the cornea; (4) degeneration of the lens, and regeneration of a new lens; (5) early reduction of the size of the pupil and subsequent widening; (6) marked early degeneration of the retina and regeneration from the ciliary margin; (7) parallel degeneration and regeneration of the optic nerve; (8) return of vision between the second and third month after operation. The eye went through these same processes after repeated grafts, the one change being a gradual permanent reduction of the ganglion cell layer of about 40%. Visual function still remained.—*P. Seckler* (Radcliffe).

5808. **Thomasson, A. H. A plea for greater uniformity in methods of field taking.** *Arch. Ophth.*, 1934, **12**, 21–32.—A controversial discussion of theoretical and practical considerations in perimetry. The author's procedure is presented in detail.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5809. **Troland, L. T. Vision: I. Visual phenomena and their stimulus correlations.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 653–703.—This chapter, revised before his untimely death by the late Professor Troland, deals largely with introspectively describable visual experience and correlation between such experience and physical and physiological factors. After a treatment of the analytical factors in visual experience, the nature of the visual stimulus, of photometric measurement, and the anatomy of the eye are briefly summarized. The psychophysics of brilliance and of the chromatic attributes is next discussed in detail, and finally brief sections are devoted to the binocular relations of color, the monocular laws governing visual form, the visual perception of motion, and the relationship between visual experience and the cerebral cortex. A bibliography of 104 titles is appended.—*L. Carmichael* (Brown).

5810. **Versluys, J. Weitere kritische Bemerkungen zur Resonanztheorie von Paul Weiss.** (Certain critical observations on the resonance theory of Paul Weiss.) *Biologia Generalis*, 1928, **4**, 617–654.—(*Biol. Abst.* VIII: 15531).

5811. **Walls, G. L. Interpretation of the stripe-formed optic papilla.** *Arch. Ophth.*, 1934, **11**, 292–296.—The stripe-formed optic papilla is shown to be associated with markedly diurnal habits and with a preponderance of cones over rods. It is pointed out that in this form the nerve gives rise to a blind spot constituting a smaller handicap than an oval one of similar area.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5812. **Wang, G.-H., Lu, T.-W., & Lau, T.-T. Pupillary dilation from cortical stimulation.** *Chinese J. Physiol.*, 1932, **6**, 225–236.—(*Biol. Abst.* VIII: 15535).

5813. **Wäre, M., Wilska, A., & Renquist, Y. Über die Bedeutung der Zeitdauer des Reiztones bei Tonschwellenbestimmungen.** (The significance of the duration of the stimulus tone in determinations of tonal thresholds.) *Skand. Arch. Physiol.*, 1933, **65**, 251–260.—(*Biol. Abst.* VIII: 15441).

5814. **Wever, E. G., Bray, G. W., & Horton, G. P. The problem of stimulation deafness as studied by auditory nerve technique.** *Science*, 1934, **80**, 18–19.—After discussing three methods of investigating deafness due to prolonged auditory stimulation, the authors report a preliminary study of stimulation deafness in three cats, using the method of electrical responses from the auditory nerve. Results show no

significant variation from those obtained with control animals, arguing against any specific effect of stimulation. These tentative results provide a basis for questioning the inferences for auditory theory that have been based on histological studies. The authors emphasize the need for further study using a combination of the three methods.—*P. Seckler* (Radcliffe).

5815. **Zitting, E. Untersuchungen über die Hornhautsensibilität bei Trachom.** (The corneal sensitivity in trachoma.) *Klin. Monatsbl. f. Augenhk.*, 1932, **89**, 301 ff.—By employing standardized hair of different thicknesses and a scheme whereby the cornea was mapped out into nine regions, Zitting investigated variations in the sensitiveness of the corneae in 42 cases of trachoma; 73 corneae had pannus, and of these cases all but two had diminished sensitivity of varying degree. Decrease in sensation seemed to be in direct proportion to the degree of the pannus, and also to the duration of the affection. Corneae unaffected by pannus, as also corneae in healed trachoma, showed diminished sensation. That diminished corneal sensation precedes the development the author could not confirm; cases of unilateral trachoma gave normal corneal reactions in the unaffected eye.—(Courtesy *Brit. J. Ophth.*)

[See also abstracts 5735, 5738, 5740, 5743, 5847, 5848, 5888, 5893, 5894, 5896, 5897, 5899, 5934, 5963, 5966, 6001, 6009, 6016, 6036, 6073, 6075, 6076, 6080, 6100, 6108, 6167, 6169, 6178.]

FEELING AND EMOTION

5816. **Bard, P. Emotion: I. The neuro-humoral basis of emotional reactions.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 264–311.—In this chapter a brief outline is given of the history of knowledge in regard to the bodily basis of emotion, with especial emphasis upon the development of knowledge of the structure and function of the autonomic nervous system, the humoral system, and the thalamus. The part of these various mechanisms in emotional behavior is next treated. Finally the evidence against the James-Lange theory of the emotions is summarized and the advantages of Cannon's diencephalic theory are presented. A bibliography of 88 titles is appended.—*L. Carmichael* (Brown).

5817. **Broom, M. E. A study of literary appreciation.** *J. Appl. Psychol.*, 1934, **18**, 357–363.—An analysis of a number of literary passages yielded a test of 50 "most emotional words." This test was administered as a multiple-choice form to high school and college students. Scores were correlated with tests for general intelligence, reading vocabulary, Pressey X-O test, and Laird personal inventory. Psychogalvanometric records were also taken during the reading of literary passages. Both qualitative and quantitative differences were revealed in the galvanometric records among individuals.—*R. S. Schultz* (Psychological Corporation).

5818. **Landis, C. Emotion: II. The expressions of emotion.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 312–351.—After presenting brief definitions of technical terms used in the study of emotion, the author treats in turn, in relation to emotion, the criteria of the emotional state, facial expression and vocalization, bodily activity, and visceral responses. In the latter category are included changes in circulation, blood, heart, respiration, metabolic rate, and gastro-intestinal activity. The roles of the endocrine glands and of the peripheral, central, and autonomic nervous systems in emotion are next considered. The electrical expressions of emotion, emotion and the feelings, and anhedonia each are considered in separate sections. A bibliography of 92 titles is appended.—*L. Carmichael* (Brown).

5819. **Maller, J. B. A controlled association test for the indirect measurement of emotionalized response patterns.** New York: Author, 1934.—The test is based primarily on the free-association word lists of Kent-Rosanoff and Jung. Each key word is followed by two other words, and the subject is to indicate which of the two is more closely associated in his mind with the key word. In each case one word is "normal" and the other is an "emotionalized" response. The test is composed of three parts: (1) a series of words used by Pintner and others for the study of the community of ideas, (2) a series of 150 words (26–175), 100 being from Kent-Rosanoff and 50 from Jung, (3) a series of words (176–200) with which superstitious ideas are often connected. Reliability (split-half) is .90 ± .04. There are two equivalent forms. In a group of normal children and adults the average score was about 20. An atypical group gave higher scores, often above 100. Total score is the number of irrational responses.—*R. Smith* (Clark).

[See also abstracts 5873, 5947, 5968, 5991, 6014, 6051.]

ATTENTION, MEMORY AND THOUGHT

5820. **Leonhardt, C. Systematischer Aufbau einer psychologischen Beweisführung in Ansehung existenzstreitiger Vorgänge.** (Systematic presentation of the use of a psychological demonstration of proofs in cases of conflicting testimony.) *Zsch. f. angew. Psychol.*, 1934, **46**, 358–394.—The author attempts to show that certain feelings which are exhibited by criminals and witnesses may indicate whether or not their statements are true. He admits that emotional expressions can be falsified, but insists that such cases can also be analyzed correctly. Many illustrations from the author's experience are given.—*K. F. Muenzinger* (Colorado).

[See also abstracts 5850, 5883, 6036, 6139, 6169.]

NERVOUS SYSTEM

5821. **Adrian, E. D., & Matthews, B. H. C. The interpretation of potential waves in the cortex.** *J. Physiol.*, 1934, **81**, 440–472.—By means of three independent pairs of electrodes and three Mathews

oscillographs the authors have studied the action potentials in the cortex of the rabbit and cat. Experiments on the effect of light and deep anesthesia, slight and severe injury, and the action of convulsant drugs on the potential waves from the cortex are described and discussed. It is concluded that the electrical activity of the cortical neurons is due to events of the same character as those taking place in nerve or muscle fiber (i.e., to successions of brief action potentials which can vary in frequency but probably not in size), but their time relations are not as rapid as those of the action potential in a nerve fiber (usually not much higher than 50 per sec.).—*M. A. Rubin* (Clark).

5822. **Altenburger, H., & Rioch, D. McK. Zur Frage der Reizbarkeit sympathischer Nervenfasern.** (The problem of the excitability of sympathetic nerve fibers.) *Zsch. f. Biol.*, 1933, **93**, 331–334.—(*Biol. Abst.* VIII: 15445).

5823. **Auersperg, A. Über die Erregbarkeitsverhältnisse im zentripetalen Ast verschiedener Reflexbogen.** (The excitability relations in the centripetal segment of different reflex arcs.) *Pflüg. Arch. f. d. ges. Physiol.*, 1932, **231**, 360–399.—(*Biol. Abst.* VIII: 15448).

5824. **Bain, W. A. The mode of action of vasodilator and vasoconstrictor nerves.** *Quar. J. Exper. Physiol.*, 1933, **23**, 381–389.—(*Biol. Abst.* VIII: 15450).

5825. **Berger, H. Über das Elektrenkephalogramm des Menschen. III.** (On the electrocephalogram in man. III.) *Arch. f. Psychiat. u. Nervenkr.*, 1931, **94**, 16–60.—(*Biol. Abst.* VIII: 15455).

5826. **Blair, H. A. Conduction in nerve fibers.** *J. Gen. Physiol.*, 1934, **17**, 125–142.—Data by E. A. Blair and Erlanger are in accord with Rashevsky's equations for the velocity of transmission in nerve. Other relations indicate that the action current is a primary factor in the transmission of the nerve impulse.—*C. H. Graham* (Clark).

5827. **Castaldi, L. Le mie vedute sui centri neurassiali del tono dei muscoli volontari al controllo di sette anni di ricerche internazionali.** (Views on the neuro-axial centers of voluntary muscle tonus.) *Scritti biol.*, 1930, **5**, 3–33.—(*Biol. Abst.* VIII: 15467).

5828. **Corey, E. L. Effects of brain cautery on fetal development in the rat.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 951–953.—The purpose of this study was to determine whether the fetus can survive extensive brain injury, and the effects of this injury on subsequent growth and development. Spontaneous movements of the living operated animals after birth or recovery from the uterus were indistinguishable from those shown by their litter controls. Responses to tactile stimuli were slightly weaker and sluggish in comparison with the controls, indicating that the cortex may be necessary for quantitatively normal responses, although not extensively involved in the production of these reactions. Physical differences, such as certain anatomical abnormalities and lower weight and length of the operated animals were also observed. Control experiments on litter mates, involving injection of carbon ink into the brain ventricles and extensive cautery of an extremity, gave wholly negative results for both physical and behavioral aspects.—*P. Seckler* (Hartford, Conn.)

5829. **Eichler, W. Schwelle, Akkommodation und electrotonische Erregbarkeitsänderungen des Nerven als Phänomene der Erregungsleitung.** (Threshold, accommodation and electrotonic alterations of excitability of nerve as phenomena of conduction of disturbance.) *Zsch. f. Biol.*, 1933, **93**, 407–458.—(*Biol. Abst.* VIII: 15472).

5830. **Feldberg, W., & Gaddum, J. H. The chemical transmitter at synapses in a sympathetic ganglion.** *J. Physiol.*, 1934, **81**, 305–320.—Evidence is advanced to support the theory that the mechanism by which each nerve impulse normally passes the synapse consists in the liberation of a small quantity of acetylcholine.—*M. A. Rubin* (Clark).

5831. **Granit, R., & Therman, P. O. Inhibition of the off-effect in the optic nerve and its relation to the equivalent phase of the retinal response.** *J. Physiol.*, 1934, **81**, 47P–48P.—Using a Cossor cathode-ray oscillograph with a condenser-coupled amplifier, the authors have obtained records of the results of light adaptation and strong stimuli on the impulses in the optic nerve of the large Hungarian frog (*R. esculenta*). The results confirm Granit's suggestion that the negative component, P III, of the retinal action potential is associated with inhibition.—*M. A. Rubin* (Clark).

5832. **Haterius, H. O. The genital-pituitary pathway. Non-effect of stimulation of superior cervical-sympathetic ganglia.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 1112–1113.—The author set out to discover whether the possible nervous pathway involved in the first phase of the genital-pituitary-ovary mechanism in the rabbit, an animal in which ovulation normally occurs only as a result of coitus, runs through the superior cervical sympathetic ganglia, as indicated by anatomical evidence. Direct electrical stimulation of the ganglia gave negative results in all cases. These results, as well as those of other investigators, show that the nervous pathway, if there is a neural mechanism involved, is other than through the superior cervical sympathetic ganglia.—*P. Seckler* (Radcliffe).

5833. **Hoagland, H. Electrical responses from the lateral-line nerves of fishes. V. Responses in the central nervous system.** *J. Gen. Physiol.*, 1934, **17**, 89–91.—Spontaneous discharges have been recorded from the lateral-line nerves of goldfish and perch, and the responses followed into the central nervous system. They enter the tuberculum acusticum and spread throughout the cerebellum. Cutting the lateral-line nerve on one side silences the ipsilateral tuberculum acusticum, but only reduces the intensity of ipsilateral cerebellar activity. Cutting the remaining lateral-line nerve produces complete silence. The possible inhibitory effects of the lateral-line discharge are discussed.—*C. H. Graham* (Clark).

5834. **Hoefer, P. Versuche über Nervenaktionsströme. II. Nerv-Muskel-Beziehungen.** (Investigations on nerve action currents. II. Nerve-muscle relationships.) *Zsch. f. Biol.*, 1933, **93**, 335–354.—(*Biol. Abst.* VIII: 15486).

5835. **Hou, C. L., & Brücke, E. T. Über die Abhängigkeit der Reizwirkung eines Herznerven von der tonischen Erregung der übrigen Herznerven.** (The dependence of the stimulating effect of a cardiac nerve upon the tonic excitation of the remaining cardiac nerves.) *Pflüg. Arch. f. d. ges. Physiol.*, 1931, **227**, 251–265.—(*Biol. Abst.* VIII: 15489).

5836. **Hunsicker, W. C., Jr., & Spiegel, E. A. Conduction of cortical impulses to the autonomic system.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 974–976.—Two series of experiments on cats were carried out to ascertain whether the pyramidal tracts by themselves can conduct corticofugal impulses to the autonomic system. In the first series the "extra-pyramidal" fibers and in the second the pyramidal tracts were severed. After each of these lesions the effects of stimulation of the motor cortex and the frontal lobe on the pupil, blood vessels, heart, sweat glands, and urinary bladder were observed. In some cases the effect of the first series was quantitatively different from that of the second, particularly in the case of the pupil, which uses the extra-pyramidal fibers to a greater extent than the pyramidal. It is concluded that a double conduction of corticofugal impulses to the autonomic centers exists.—*P. Seckler* (Hartford, Conn.)

5837. **Loo, Y. T. [The cerebral cortex of a Chinese brain (IV & V).]** *Monog. Nat. Res. Inst. Psychol., Acad. Sinica*, 1934, Ser. No. 6. Pp. 62.—In this monograph the author goes on to describe in detail the parietal and insular lobes of the same Chinese brain as used in the study of the frontal lobe (see VIII: 2468). In the parietal lobe, 8 areas from the post-central region (PA, PB, PC), superior parietal lobule (PD, PE), and inferior parietal lobule (PF, PG, PH) were taken. In the insular lobe, only two areas (IA, IB) were taken. Absolute thickness of different cortical areas, percentages of different layers in each area, cell number per $(0.1\ mm)^3$ and size of cells in different layers of the various areas in the two lobes, were compared, and measurements were given in 4 tables. (1) It is found cytoarchitectonically that the VIth layer in areas PC, PE, PF and PG is thinner in the Chinese brain than in the European brain; the percentages of Ist, IInd, IIIrd and IVth layers are generally speaking about the same in both specimens; the percentage of the Vth layer is higher and that of the VIth layer is slightly lower in the Chinese brain; the number of cells per $(0.1\ mm)^3$ is greater for the IIIrd and IVth layers in the Chinese brain; and the cell size is generally a little larger in the Chinese brain than in the European brain. (2) The author did not find much difference myeloarchitectonically between the Chinese brain and the European brain described by Vogt. (3) The cytoarchitectonics of the insular areas in the Chinese brain is about the same as in the European brain. Area IA is, however, much thicker in the former than in the latter, which difference might be due to regional variation. Area IB is of about the same thickness in every layer for both specimens. As to the percentage of each layer for these two areas and the number or size of cells in each layer, there is found little difference between the Chinese and European brains. (4) Myeloarchitectonically, Areas IA and IB are very poor in any kind of fibers. But it is interesting to note that Area IA, which has coarse radiate bundles, bears the characteristics of the frontal lobe, and Area IB, which has only slender radiate bundles, bears the characteristics of the temporal or parietal lobe. Twenty plates (Figs. 33–52) depict the different areas of the parietal and insular lobes under consideration.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5838. **Ngowyang, G. Die cytoarchitektonische Felderung des Stirnhirns beim Menschen.** (The cytoarchitectonic differentiation of the forebrain in man.) *Chinese J. Physiol.*, 1934, **8**, 189–194.—The author found cytoarchitectonically in the frontal lobe of a normal human brain the same number of divisions as Vogt had pointed out myeloarchitectonically. The four major regions are regio frontalis agranularis, regio frontalis dysgranularis, regio frontalis granularis, and regio frontalis paralimbica. The last-mentioned region is first distinguished from regio frontalis dysgranularis by the writer, and is characterized by containing spindle cells in its 5th layer. Regio frontalis granularis may, according to the denseness of cells in its 4th layer, be subdivided into subregio frontopolaris densogranularis and subregio frontoorbitalis latogranularis.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5839. **Ngowyang, G. [The cytoarchitectural subdivisions of the area striata of human brain.]** *Science* (Chinese), 1934, **7**, 947–954.—This paper is a preliminary report of the author's investigation, in the Kaiser Wilhelm-Institut für Hirnforschung, Berlin-Buch, on the problem of subdivisions of the area striata according to cytoarchitectural features. He found in this cortical area of a normal human brain no less than 16 sub-areas, which were sharply delimited from one another. Generally speaking, the sub-areas at the occipital pole contain more cell elements than those in the anterior part of the area striata, where, again, the sub-areas on the lower half contain on the average more cells than those on the upper half. On the ground of anatomical findings, it is concluded that the structure of the area striata is not identical throughout its whole extent. The author is inclined to believe that each of the 16 subdivisions should have its specific function in vision and that the projection of the visual field or of the retina on the area striata should be a much finer one than the quadrant projection which has been until now supported by most neurologists and ophthalmologists. It may further be supposed that the sub-areas at the occipital pole are mainly concerned with the macula, and the remaining 12 sub-areas in the more anterior part of the striate cortex have generally to do with the periphery of the visual field. It is also found

that the doubling of the inner granular layer (layer IV of Vogt and Brodman) is not equal in all these sub-areas, and that the two sub-layers, IVa and IVc, are functionally different (1) in the density of the supply of blood-vessels, (2) in their reaction to the selective hyaline blood-vessel disease, and (3) in the distribution of nerve fibers in them. Figures 1 to 3 inclusive indicate the location and extent of the 16 sub-areas, while Figure 4 depicts the area striata in cross-section. Bibliography of 32 titles.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5840. **Ramón y Cajal, S. ¿Neuronismo o reticularismo?** (The neuronal vs. the reticular doctrine.) *Arch. de neurobiol.*, 1933, **13,** 579–646.—Five chapters and 40 semi-schematic figures of anatomical facts are presented in this second part of a series dealing with the objective proof of the anatomical unity of nerve cells. Histological evidence from ontogenetic development of nerves, as well as that from the phylogenetic comparison of nerve structures, is given in support of the neuronal doctrine and as disproof of the reticular theory of nervous function.—*R. M. Bellows* (Ohio State).

5841. **Raufenbarth, C. Chronaximetrische Untersuchungen über die Wirkung von Lokalanaesthetica an sensiblen Nerven.** (Chronaximetric investigations on the effect of local anesthetics on sensory nerves.) *Arch. f. exper. Pathol. u. Pharmakol.*, 1934, **175,** 113–127.—*R. R. Willoughby* (Clark).

5842. **Rushton, W. A. H. Threshold and current distribution in nerve.** *J. Physiol.*, 1934, **81,** 41P–42P.—The author finds that the stimulating fraction of the current remains constant for different interpolar lengths, and therefore shows that the variation of threshold with interpolar length is dependent simply upon the current distribution in nerve. The shorter the length, the smaller the fraction which penetrates, and hence the greater applied current required to maintain the stimulating fraction constant.—*M. A. Rubin* (Clark).

5843. **Schwartz, H. G. Reflex activity within the sympathetic nervous system.** *Amer. J. Physiol.*, 1934, **109,** 593–604.—"Changes in skin resistance in the pad of a cat's forepaw occur in response to reflex activity of the sympathetic nervous system. In the present study it is shown that a certain fraction of these reflex impulses are mediated solely through the stellate ganglion; that is, they are true sympathetic reflexes and require no central connection of the stellate ganglion. The afferent fiber carries impulses probably from the blood vessels or deeply lying tissues of the forelimb, through the grey ramus, to its cell of origin in the stellate ganglion. There synaptic relations with the efferent neurones occur."—*C. Landis* (N. Y. Psychiatric Institute).

5844. **Spiegel, E. A., & Aronson, L. The interaction of cortical and labyrinthine impulses to ocular muscle movements.** *Amer. J. Physiol.*, 1934, **109,** 693–703.—"The cortical centers of eye movements were stimulated after unilateral labyrinthectomy, during Bechterew's compensatory nystagmus, and during caloric stimulation of the labyrinth. The interference of the spontaneous nystagmus after loss of one labyrinth, as well as of Bechterew's nystagmus, with cortical impulses which tend to move the eyeballs in the opposite direction, eventually results in clonic eye jerks in the direction of the nystagmus, toward the stimulated cerebral hemisphere instead of toward the resting hemisphere. In caloric stimulation of the labyrinth, the vestibular reaction was weaker than the cortical, the corticofugal impulse suppressing a nystagmus toward the stimulated hemisphere. It is assumed that the interference of the corticofugal with the labyrinthine impulses takes place within the vestibular nuclei."—*C. Landis* (N. Y. Psychiatric Institute).

5845. **Svetnik, Z. Y., & Volshonok, O. S. Topodiagnosticheskoe znachenie khvatatelnikh fenomenov v klinike lobnikh porazhenii.** (Topodiagnostical significance of the grasping phenomenon in the clinic of frontal lobes.) *Sovet. psikhonevrol.*, 1934, No. 2, 45–59.—The grasping phenomenon was observed in 12 cases in which the participation of the frontal lobes (i.e. their connections) in the lesion had been demonstrated, in some cases at the operation, in others at obduction. The symptom was observed in cases in which the posterior part of the frontal lobe corresponding to field 6 was involved in the lesion. In most cases the grasping phenomena were combined with heightened reflexes of Meyer, indicating that the latter may likewise be symptomatic of a lesion in this part of the frontal lobe. It is concluded that the reflex arc of this phenomenon must be located in the lower parts of the brain stem.—*R. Smith* (Clark).

5846. **Umrath, K. Zur Kondensatortheorie der elektrischen Erregbarkeit des Nerven.** (The condenser theory of the electrical excitability of nerve.) *Zsch. f. Biol.*, 1933, **93,** 259–265.—(*Biol. Abst.* VIII: 15529).

5847. **Wang, G. H. [Action potentials of the visual cortex and the superior colliculus induced by stimulation of the retina with light.]** *Chinese J. Physiol.*, 1934, **8,** 121–143.—Action potentials from the visual cortex and the superior colliculus of 30 rabbits under "Dial" narcosis in response to the photostimulation of the retina have been recorded with the Mathews oscillograph and its amplifying system and with the concentric needle electrodes of Adrian and Bronk. Concerning action potentials of the visual center, the results show among other things that the cortical potentials consist of an "on" and "off" wave only. These waves were single monophasic ones, and usually lasted about 30 milliseconds. The "on" and "off" potentials completely disappear after procainization of the visual cortex into which the needle electrodes are inserted. The latency of the "off" wave is much shorter than that of the "on" wave. The "off" potential may not appear when the duration of light is less than 0.5 second. The latency of the "on" potential varies inversely with the intensity of light, and its amplitude seems to vary directly (not linearly), while the "off" wave is not influenced. In flicker, the "off" potentials in response to light flashes following the first one are greatly reduced. Concerning potentials

of the superior colliculus, the results show that these also consist of an "on" and "off" wave, but are diphasic in nature, the "off" potential being sometimes triphasic. After the injection of a few drops of a 1% solution of procaine hydrochloride into the superior colliculus at a place as near to the inserted needle electrodes as possible, the "on" and "off" potentials completely disappear. The "off" potential always persists, no matter for how short a duration the light lasts. When the duration of light is shorter than, or equal to, the latent period of the "on" potential, algebraic summation of the "on" and "off" waves occurs. The increase of intensity of light also reduces the latency of the "on" potential, but has no effect on that of the "off" potential. In flicker, the latency of the "on" potential of the superior colliculus induced by the flashes of light following the first one is also greatly reduced. A comparison of action potentials of the two regions with the electroretinograms justifies the conclusion that the similarities in the effects of the light intensity and flicker on the cortical and tectal "on" potentials are peripherally determined by the changes which these cause in the retinal processes. The probable relation of the cortical potentials to the vision of normal animals, and that of the tectal potentials to the vision of decorticated animals are discussed.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

5848. **Zollinger, R., & Schnitker, M. T. Skin temperature reactions following removal of the left cerebral hemisphere.** *Science*, 1934, **79**, 540.—Determinations of skin temperature changes in a patient after the entire left cerebral hemisphere, with the exception of the basal ganglia, had been removed, showed that there is no measurable alteration in peripheral temperature regulation on either the ipsilateral or the contralateral side. These observations are opposed to those of Kennard, who concluded that the premotor area of the cerebral cortex directly influences the vasomotor mechanism.—*P. Seckler* (Radcliffe).

5849. **Zwilling, E. Induction of the olfactory placode by the forebrain in *Rana pipiens*.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 933–935.—Three series of operations were performed in an attempt to localize the part of the brain which induces the olfactory placode. Parts of the forebrain were transplanted to the flank in different stages of development of the individual. Transplantation of large pieces of the forebrain of the intermediate neurula stage median to and almost on a level with the optic vesicles induced olfactory invagination and, in a few cases, development of olfactory canals in the flank. Some evidence was obtained that the olfactory placode is determined in the head ectoderm some time between the late neurula and early tail-bud stages.—*P. Seckler* (Hartford, Conn.)

[See also abstracts 5787, 5793, 5807, 5812, 5858, 5866, 5881, 5886, 5887.]

MOTOR PHENOMENA AND ACTION

5850. **Anastasi, A. Practice and variability: a study in psychological method.** *Psychol. Monog.*, 1934, **45**, No. 5. Pp. 55.—Four tests, cancellation, hidden words, symbol-digit, and vocabulary, were scaled on 1000 college students of both sexes. The subjects in this group whose scores fell at or below −1 Q of the total distribution were selected for the practice experiment. The practice consisted of 15 trials in hidden words and 20 trials in each of the other tests. All of the trials of one test were administered at a single sitting. Individual differences, measured by the standard deviation, increased from the first to the last trial in each test. The use of the standard deviation instead of some other measure as an index of changes in variability with practice is theoretically justifiable. In addition, evidence was presented which suggested strongly that the rise in standard deviation with practice is not a mere statistical artifact which results necessarily from the rise in size of scores with practice. The correlations computed show that individuals tend to maintain the same relative positions during practice; and, unless prevented by extraneous limitations of improvement, the better subjects tend to improve somewhat more than the poorer subjects.—*H. Cason* (Wisconsin).

5851. **Bendix, B. Der Babinski-Reflex bei Kindern der ersten Lebenszeit.** (The Babinski reflex in very young children.) *Zsch. f. Nervenhk.*, 1931, **51**, 93–98.—(*Biol. Abst.* VIII: 15454).

5852. **Cannon, W. B. Hunger and thirst.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 247–263.—In this chapter the present knowledge of the mechanisms by means of which hunger and thirst are controlled is presented. The most notable addition since the previous chapter in the *Foundations of Experimental Psychology* was written is a summary of the work of Gregersen, in which a definite relationship between eating and water intake is demonstrated. A bibliography of 30 titles is appended.—*L. Carmichael* (Brown).

5853. **Cox, J. W. Recent researches into the nature of manual skill.** *Human Factor*, 1934, **8**, 356–366.—Statistical treatment of the scores in a number of manual dexterity tests indicates that there is a group factor of manual skill which (together with *g*, a group factor of mechanical ability, and one or more specific factors) is involved in all complex manual tasks.—*M. Horsey* (National Institute of Industrial Psychology).

5854. **Crutcher, R. An experimental study of persistence.** *J. Appl. Psychol.*, 1934, **18**, 409–417.—83 children in London schools ranging from 7 to 16 years and classified into four groups—physical defectives, mental defectives, orphaned children, and normal children—were given six individual tests aimed at measuring persistence. The tests included two mechanical puzzles, card house building, addition of sums, copying a picture, and cancelling of A's. Persistence in these tests (length of time) correlated .30 with IQ. No characteristic differences were found between the four groups of children. Boys tended to persist longer in the arithmetic test. The most persistent children seemed to talk least, to be quieter,

and to be of the "introverted" type. An application of the tetrad-difference technique indicates that there are group factors as well as specific factors "probably including general intelligence, special abilities, perseveration and determination."—*R. S. Schultz* (Psychological Corporation).

5855. **De Montpellier, G. L'apprentissage des labyrinthes et le facteur temps dans la formation des associations.** (Maze learning and the time factor in the formation of associations.) *J. de psychol.*, 1934, **31**, 408–418.—A review of the experimental literature concerning maze experiments in order to emphasize one aspect of the part played by the time factor. Associations are all the more quickly established as the interval between the time when the associations begin to operate and the completion of the task is shorter. In the case of the maze, the temporal interval corresponds to a spatial interval with similar variations, the speed of running through the maze being uniform. While every explanation of the mechanisms involved in the formation of associations is merely an hypothesis, the main point of the problem is a consideration of the existence and nature of the intervening activities between the formation of the association and the effect produced by the response. It is thus chiefly a matter of the effects of interference. —*P. S. de Q. Cabot* (Harvard).

5856. **Dusser de Barenne, J. G. The labyrinthine and postural mechanisms.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 204–246.—In this chapter a history of knowledge of the labyrinthine sense is first presented. After discussing the methods used in the study of this sense the various labyrinthine reflexes are considered in detail. Here are treated reflexes dependent upon angular acceleration, such as those involving the muscles of the eye, neck, limbs, and trunk. Reflexes dependent upon linear acceleration, caloric stimulation, mechanical stimulation, and electrical stimulation are also considered, as are the various classes of positional reflexes. The results of labyrinthectomy and the central-nervous-system mechanisms of labyrinthine reactions are also dealt with. A bibliography of 216 titles is appended.—*L. Carmichael* (Brown).

5857. **Flach, A. Psychomotorische Gestaltbildung im normalen und pathologischen Seelenleben.** (The formation of psychomotor Gestalten in normal and pathological mental life.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 97–152.—The author quotes Kleist's studies of psychomotor reactions in pathological cases showing that feeling-tone follows rather than precedes reaction to stimuli, and only when these become widespread. A totality of motor reaction brings emotion. Gestalt psychology has thus far dealt with the totality of sense-perception, not yet with totality of motor reaction, and the field offers opportunity. He experiments with a number of professional dancers and gymnastic instructors, observing the motor response to a sharp stimulus. He found that only as the reaction ramified from the initial response into a widespread Gestalt did consciousness arise, with accompanying emotion. Further experimentation carried on with endogenous stimuli revealed a similar successive rhythmic response, conscious anticipation arising sooner. A third experiment induced behavior passively, and found like results. Further study of pathological cases revealed that where the integrated rhythmic characteristic of movement does not exist the conscious element is disturbed; this accounts for our inability to follow the patient's thought.—*A. B. Herrig* (Michigan Central State Teachers College).

5858. **Forbes, A. The mechanism of reaction.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 155–203.—A review is first presented of the evolution of the mechanism of reaction and of the general function of the total response system. The physiological properties of nerve and muscle, especially in relation to the all-or-none law and the phenomena of metabolism, are next presented. The newer views in regard to the action of the autonomic system on muscles and gland are described. Finally, the special functions of the central nervous system are considered. Here it is asserted that: "Recent evidence points to the probability of the release of chemical substances as the basis of central excitatory and inhibitory effects." Integration in the centers is considered and the assertion made that no "vital force" need be postulated to explain the higher mental activities of man. A bibliography of 188 titles is appended.—*L. Carmichael* (Brown).

5859. **Gesell, R., & Moyer, C. Costal and abdominal respiratory movements in relation to nervous control of breathing.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 1089–1092.—This paper reports the investigation of the mechanisms of breathing through the effects on both costal and abdominal breathing of dogs of several chemical substances and of faradic stimulation of various nerves. The great importance of the vagus nerves in the control of breathing and the dependence of vagal function on inflowing afferent nerve impulses is emphasized.—*P. Seckler* (Radcliffe).

5860. **Heymans, C., & Bouckaert, J. J. Nouvelle démonstration de la sensibilité réflexogène du ganglion carotidien aux excitants chimiques.** (A new demonstration of the reflexogenous sensitivity of the carotid ganglion to chemical excitants.) *C. r. Soc. biol.*, 1932, **111**, 654–656.—The results of control experiments support the conclusion that the locus of the reflexogenous chemical sensitivity (respiratory and circulatory) is to be found in the glomus or carotid ganglion, as De Castro had supposed, at the level of the carotid bifurcation. The anesthesia of one side of this bifurcation suppresses the reflexes to chemical excitants or to occlusion, while the other side reacts normally.—*J. R. Smith* (Clark).

5861. **Heymans, C., Bouckaert, J. J., & Dautrebande, L. Sinus carotidiens et sensibilité réflexogène respiratoire aux agents chimiques.** (The carotid sinus and reflexogenous respiratory sensitivity to chemical agents.) *C. r. Soc. biol.*, 1932, **109**, 566–568. —By injecting different chemical solutions (weak doses of sodium bicarbonate, sodium sulphide, potas-

sium cyanide, lobeline, nicotine), or solutions rich in carbon dioxide, into the circulatory current of the common carotid, one may produce a respiratory reaction (hyperpnea). But, on the other hand, if one effects the enervation of the sinus by section beyond the carotid ganglion (because, between the bifurcation and the ganglion, the mechanical sensibility to pressure disappears while leaving intact the chemical sensibility), these injections remain without effect. It is not, then, the bulbar irrigation which creates the respiratory reactions.—*J. R. Smith* (Clark).

5862. **Heymans, C., Bouckaert, J. J., Euler, U. S. v., & Dautrebande, L. Sur la sensibilité réflexogène vasomotrice des vaisseaux artériels aux excitants chimiques.** (On the reflexogenous vaso-motor sensitivity of the arterial vessels to chemical excitants.) *C. r. Soc. biol.*, 1932, **109**, 568–570.—In the arterial network of the femoral artery one does not obtain, by chemical action, some reactions, at least by utilizing some concentrated solutions of caustic substances (such as nitrate of silver or 40% sodium carbonate) which produce painful reactions. When one introduces stronger doses of solutions in the general circulation one obtains the same reactions which are effected by weak doses in the region of the isolated sinus: vaso-dilatation with carbonate or hydroxide of sodium, vaso-constriction with cyanide, sodium sulphide, hydrochloric acid, lobeline, and nicotine.—*J. R. Smith* (Clark).

5863. **Hull, C. L. Learning: II. The factor of the conditioned reflex.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 382–455.—After an historical introduction the author turns to a consideration of an experiment of Anrep and one of Hilgard and Marquis as typical conditioned-response experiments. Conditioning in relation to the following responses is then considered: the knee jerk, the plantar reflex, the abdominal reflex, the Achilles reflex, reflex withdrawal from a painful stimulus, the eye wink, the pupillary reflex, the motor responses of breathing, vasomotor constriction, the galvanic skin reaction, the rise in pitch of the voice, the fetal "kicking" reaction, the food-taking reactions of neonates and older children, salivation, vomiting, defecation and urination, diuresis, and defensive blood reactions in immunity. Conditioning as a function of the physical characteristics of a wide range of stimulus variables and special properties of conditioned reflexes are next treated in detail. In conclusion, the possibility that in the study of behavior principles discovered by conditioned-reflex technique may form an unambiguous theory comparable to the quantum theory in modern physics is suggested. A bibliography of 119 titles is appended.—*L. Carmichael* (Brown).

5864. **Hunter, W. S. Learning: IV. Experimental studies of learning.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 497–570.—After showing that learning is intimately involved in the development of all behavior patterns, the author considers the special phenomena of learning which have been revealed by psychological investigations. He considers in detail the nature of the learning curve in such a way as to include a treatment of insight. Whole versus part methods of learning, the distribution of effort, age and learning, and the relation between speed of learning and retention are next considered. The problem of retention and forgetting is dealt with in detail and the position supported that forgetting is not mere decay but rather an active process. The transfer of training, the relation of initial and final abilities, and backward association are also dealt with. In conclusion it is asserted that "Learning in its basic character thus depends upon the fulfillment of certain temporal conditions in stimulus relationships and upon the presence of unconditioned or well-established conditioned responses with their gradients." A bibliography of 168 titles is appended.—*L. Carmichael* (Brown).

5865. **Laird, D. A. How a warm milk drink in the middle of the afternoon's work reduces "last hour slump."** *Med. Rec.*, 1934, **140**, 131–132.—The author suggests that the falling off in production late in the afternoon is due to the accumulation of sodium lactates and depletion of the available glycogen. A warm milk drink rich in carbohydrates, which quickly becomes glycogen, should increase the available glycogen. Four girls were studied while addressing envelopes by hand, or inserting letter sheets in envelopes. Curves of their work show that there is a rapid decrease in output on days when no warm drink was given, but the output does not decline on those days when there is a milk drink given.—*L. S. Selling* (Eloise Hospital).

5866. **Lashley, K. S. Learning: III. Nervous mechanisms in learning.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 456–496.—After pointing out the various meanings attached by various authors to the word *learning*, the author of this chapter considers the origin of behavior patterns during ontogeny and phylogeny. The relationship between learning and the quantity of neural tissue and the histology of nerve is next treated. On the basis of this study the general characteristics of the organization of habits as worked out in controlled animal experimentation are next dealt with. A special section is devoted to a consideration of the light thrown on central integration by injuries to the nervous system, and a central theory of imagery is defended. The traditional "laws of learning" are next considered in relation to the theories of the mechanism of learning. In conclusion, it is asserted that descriptive studies of learning must be extended before any attempt to formulate a general theory of learning will be of value. A bibliography of 42 titles is appended.—*L. Carmichael* (Brown).

5867. **Lund, R. Die vertikale Komponente des labyrinthären Nystagmus.** (The vertical component of labyrinth nystagmus.) *Acta otolaryngol.*, 1934, **20**, 414–424.—In certain positions of the head, a vertical component was found in labyrinth nystagmus. This was found especially in cold water stimulations, but

also in some with warm water. Vertical components were also found in post-rotatory nystagmus and pressure nystagmus, but not in galvanic nystagmus.—*M. B. Mitchell* (New Hampshire State Hospital).

5868. **Manzer, C. W. Fatigue. How does it affect the quantity and the quality of muscular work?** *Person. J.*, 1934, **13**, 140–143.—From an analysis of laboratory work curves, the author finds that fatigue not only decreases the capacity to do work but also increases enormously the irregularity of the work done. This irregularity results in spoiled and otherwise unsatisfactory output. All findings point to this important principle: rest should come before, not after, fatigue has developed.—(Courtesy *Person. J.*)

5869. **Mayerhofer, G., & Pauli, R. Die Dynamometerreaktion.** (The dynamometer reaction.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 241–258.—The authors review the rather extensive studies that have been made of reaction time and of reaction endurance and they interpret their values. They describe an apparatus used by them and find correlations between time and endurance. The shorter time is accompanied by weaker pressure. However, the correlation appears only in the average, one-third of the individual cases varying from it. These variations are accounted for. The authors also describe the use of a chin support for the study of speech reactions.—*A. B. Herrig* (Michigan Central State Teachers College).

5870. **Metcalf, M. M. The return of muscular activity after paralysis.** *Science*, 1934, **79**, 591.—The author describes his own experience of recovery from paralysis and experimentation on the effect of effort of will in the beginning of muscular movement. He believes that attention should be accorded the volitional as well as the physical aspects of such phenomena.—*P. Seckler* (Radcliffe).

5871. **Mitolo, M. La eccitabilità riflessa in funzione del pH.** (Reflex excitability as a function of pH.) *Atti R. Accad. Nazion. Lincei Rend. Cl. Sci. Fis. Mat. e Nat.*, 1930, **12**, 191–194.—(*Biol. Abst.* VIII: 15508).

5872. **Pentsik, A. S., & Lisitsa, F. M. Lokalnie i segmentnie staticheskie reaktsii.** (The local and segmental static reactions.) *Sovet. psikhonevrol.*, 1934, No. 2, 69–82.—The authors have carried out a number of experimental and clinical studies with histological control in which they investigated the so-called "Stützreaktion" as well as the segmental reactions ("Schunkelreaktion," "Hinkebein"-reaction, "Stehbereitschaft"-reaction, etc.) in parietal, frontal, and spinal lesions. Human beings were used in the clinical studies, dogs and cats in the experimental studies.—*R. Smith* (Clark).

5873. **Popov, N. F. Die Wirkung des emotionalen Zustandes bei alimentärer Reizung auf den spinalen Bewegungsreflex.** (The effect of emotional condition in alimentary stimulation upon the spinal movement reflex.) *Pflüg. Arch. f. d. ges. Physiol.*, 1932, **230**, 717–727.—(*Biol. Abst.* VIII: 15512).

5874. **Robinson, E. S. Work of the integrated organism.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 571–650.—This chapter is devoted to a consideration of the experimental facts and theories which have been developed in an effort to understand the basic mechanisms of work. After a definition of terms the problem of energy transformations and work is considered. The work decrement and its cause are next considered in relation to a large number of summarized experiments. As a result of this consideration a series of seven principles are proposed to describe the work decrement. These principles are formulated in terms of changes in stimulus-response connection. "Warming up," exhaustion, facilitation and distraction, effort, and other special factors in the study of the work of the intact organism are also treated. A bibliography of 131 titles is appended. This bibliography is made more useful in that references which themselves contain bibliographies are specially indicated.—*L. Carmichael* (Brown).

5875. **Santenoise, D., Bonnet, V., & Richard, A. Etude électro-physiologique du réflexe de Cyon.** (An electro-physiological study of the Cyon reflex.) *C. r. Soc. biol.*, 1932, **111**, 429–430.—(*Biol. Abst.* VIII: 15517).

5876. **Schäfer, T. Über gebärdliche Verhaltensweisen, insbesondere bei Kindern.** (Concerning modes of gesture, especially with children.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 1–48.—Following the lead of a study made by Witte of the University of Rostock, Schäfer of Essen makes a similar study with children, normal and retarded, and with a blind adult, with added experimentation in the tactile field with seeing persons blindfolded. Using the gesture-language classification of Wundt-Reuschert, he selected sentences necessitating interpretation of demonstrative gestures, descriptive gestures and accompanying gestures. His findings show that normal children interpret correctly about 67% in gesture language, children in opportunity rooms as high as 86%. The lower the intelligence the greater is the tendency to use gesture and to interpret through gesture. The blind showed marked tendency to accurate interpretation. The author concludes that normal children inhibit gesture language in favor of spoken; also that children do not as a rule interpret facial expression.—*A. B. Herrig* (Michigan Central State Teachers College).

5877. **Seward, J. P., & Seward, G. H. The effect of repetition on reactions to electric shock; with special reference to the menstrual cycle.** *Arch. of Psychol.*, 1934, No. 168. Pp. 103.—The present investigation was an attempt to measure the effects of both repetition and the menstrual cycle on daily reactions to a series of electric shocks. The subjects were 6 men and 6 women, measured over 24 to 57 days. The reactions measured were respiration, muscle thickening, movement, galvanic skin reflex, galvanic recovery, and subjective ratings. In most subjects repetition of the shock resulted in progressive habituation. Individual differences appeared in susceptibility of habituation. With regard to the

menstrual cycle the results were negative for all subjects on all measures. There were no changes in the results of the women subjects which could not be matched by similar changes in those of the men.—*E. M. Achilles* (Columbia).

5878. **Stone, C. P. Learning: I. The factor of maturation.** In *A Handbook of General Experimental Psychology.* Worcester, Mass.: Clark University Press, 1934. Pp. 352–381.—After a discussion of the general problem of maturation in relation to the older concept of instinct, a summary of developmental schedules of behavior in fetal and neonatal mammals is presented. Under the heading of *Hereditary Mechanisms* the primary and secondary regulators of maturation are considered. Under the first of these headings such concepts as those of ancestral habits, genetic alteration of behavior in rats and dogs are considered. The evidence in regard to the maturational factors in the attainment of puberty is considered. Under the second heading, neural patterns and humoral agents are discussed. In conclusion, the dependent and interdependent relationships between maturation and learning in postnatal life are discussed in relation to experimental control of environmental stimulation and the age of the experimental organisms. A bibliography of 51 titles is appended.—*L. Carmichael* (Brown).

5879. **Switzer, St. C. A. Anticipatory and inhibitory characteristics of delayed conditioned reactions.** *J. Exper. Psychol.*, 1934, **17**, 603–620.—Anticipatory and inhibitory characteristics of delayed conditioned responses (galvanic skin response and respiration) were studied in 20 subjects in the main part of this investigation. A supplementary study using 9 of these subjects and a spontaneous recovery test of 5 subjects were also made. A faint light of 21 seconds duration served as the conditioned stimulus. The original stimulus was a faradic current delivered to the index finger for 1.2 seconds. The electro-tactual stimulus occurred at the end of the 16th second of continuous stimulation by the light, the conditioned stimulus lasting for 3.8 seconds after the termination of the light stimulus. The findings are summarized as follows: (1) The latency of the anticipatory GSR to the conditioned stimulus progressively increased from a mean of 5 seconds during the first four delayed light-shock presentations to a mean of 10 seconds at the end of the training period. (2) A rest period of 24 hours caused the anticipatory reaction to move forward to its original position. A disinhibitory stimulus caused an immediate decrease in latency of the anticipatory reaction comparable to that produced by 24 hours' rest. (3) In the test series a fairly marked decrease in volume of respiration was evidenced during the first 16 seconds of each presentation of the conditioned stimulus.—*H. W. Karn* (Clark).

5880. **Thornval, A. The caloric reaction in morbus Menière.** *Acta otolaryngol.*, 1934, **20**, 443–448.—Caloric reactions between attacks were studied in 55 patients suffering from one-sided Menière's disease. Water 7° below or above body temperature was used. The method consists primarily in recording the time before the first nystagmus is observed, but records were also kept of the duration of the nystagmus and the amount of water used. In 25 out of the 55 cases, the reaction observed on the diseased side was less than on the healthy side, indicating a definite decrease in vestibular function. There were no marked differences found in the other cases, but this does not signify that the function was normal. It may be due to lack of refinement in the technique. In no case was there an increased caloric reaction on the diseased side.—*M. B. Mitchell* (New Hampshire State Hospital).

5881. **Uramoto, S., Uchiyama, K., Sugimoto, R., Yasuda, K., Ishimoda, F., Mori, K., Sasaki, R., Shimozuma, T., Koshiba, K., Takei, K., Hattori, Y., Yoshida, E., & Tokuda, M. Studies on the nerve-muscle physiology.** *Jap. J. Med. Sci. III, Biophysics*, 1931, **2**, No. 2, 114–120.—Many isolated experiments on nerve-muscle physiology, including nerve and muscle excitability and conductivity, are cited. The modes of conduction of excitation of nerve and muscle are discussed and the series reviewed. Attention is called to Uramoto's experiment showing that the contraction wave in a muscle does not proceed to its whole length if a weak electrical stimulus is given directly to a muscle with Pratt's capillary electrode. This is considered significant, as it not only contradicts the all-or-none principle of muscle fiber contraction, but is sufficient to call in question the theory of decrementless conduction of narcotized regions of nerves. The conclusions are that the evidence opposes the theory of decrementless conduction of narcotized nerve regions and also the all-or-none principle in muscle fibers.—(*Biol. Abst.* VIII: 15530).

5882. **Volkovich, V. A. Different qualitative forms of psychical fatigue and their physiological correlates.** *Australas. J. Phil. & Psychol.*, 1934, **12**, 229–232.—Nechaev's method of distinguishing grades of "sensory-motor harmony," which are the qualitative forms of psychical fatigue, needs to be supported by the demonstration of corresponding physiological changes. By "studying the influence of Narzan baths on 194 invalids" it was found that certain physiological functions are disturbed in proportion to deviations from the normal "coefficient of sensory-motor harmony." Such functions, which include reflexes, blood pressure, specific gravity of urine, and sleep, were heightened or reduced about 75% according to whether the harmony was qualified by sensory or motor enfeeblement.—*H. D. Spoerl* (St. Johnsbury, Vt.)

5883. **Zartman, E. N., & Cason, H. The influence of an increase in muscular tension on mental efficiency.** *J. Exper. Psychol.*, 1934, **17**, 671–679.—It was the purpose of these experiments to compare the time required to solve short arithmetical problems under normal conditions and the time required to solve the same problems when the subject exerted a pressure between 25 and 40 pounds with his right foot on a pedal apparatus. 18 university students, 6 men and 12 women, were used as subjects. Each subject solved each problem under two conditions,

half of them doing a problem first under tension and later under normal conditions and the other half doing the problem first under normal conditions and later under tension. "The most general conclusion which seems justified by all of the results of our experiment is that increasing the tension of the right leg does not in itself definitely increase the efficiency of solving arithmetical problems."—*H. W. Karn* (Clark).

[**See also abstracts 5734, 5747, 5754, 5796, 5827, 5834, 5843, 5844, 5845, 5885, 5886, 5887, 5892, 5898, 5900, 5901, 5916, 5941, 5999, 6010, 6041, 6142, 6143, 6161.**]

PLANT AND ANIMAL BEHAVIOR

5884. **Allison, J. B., & Cole, W. H. Stimulation of *Fundulus* by hydrochloric and fatty acids in fresh water, and by fatty acids, mineral acids, and the sodium salts of mineral acids in sea water.** *J. Gen. Physiol.*, 1934, **17**, 803–816.—Stimulation of *Fundulus* by hydrochloric acid in fresh water is correlated with the effective hydrogen-ion concentration. Stimulation by the *n*-aliphatic acids in the same environment is correlated with the effective hydrogen-ion concentration and the potential of the non-polar group in the molecule. Stimulation by hydrochloric, sulfuric, and nitric acids in sea water is correlated with the change in hydrogen-ion concentration of the sea water. The *n*-aliphatic acids increase in stimulating efficiency in sea water as the length of the carbon chain increases.—*C. H. Graham* (Clark).

5885. **Aronowitsch, G., & Chotin, B. Über die Nachahmung bei den Affen (*Macacus rhesus*).** *Zsch. Morphol. u. Ökol. Tiere*, 1929, **16**, 1–25.—The method of "experimental conflict" was applied by Chotin in this study of imitation. It consisted in putting the animals in such a relationship to each other that the positive stimulus associated with feeding for a group of animals should be a negative signal for one of the selected individuals and vice versa. These associated motor reflexes had been acquired in a condition of reciprocal isolation of the selected individual and the rest of the group, which had been kept in separate cages. In cases where imitation was absent the behavior of each animal put into the common cage with the rest of the animals was determined by its individual training acquired when under conditions of reciprocal isolation. The experiments were performed in the Leningrad Zoological Gardens. The application of this method of "experimental conflict" supports Thorndike's point of view that monkeys "are not good at mimicry." Their individually acquired experience prevails over imitation. The authors also agree with Watson's opinion that the high position of monkeys in the animal world is not to be attributed to their imitation but rather to their extraordinary sensibility to external stimuli and their extreme aptness to muscular reactions. In the experiments of these authors the average % of imitation of all the monkeys rated 25. It is clear that the imitation of a selected individual in regard to the rest of the group is stronger than the group's imitation of the individual.—(*Biol. Abst.* VIII: 15415).

5886. **Bethe, A. Studien über die Plastizität des Nervensystems. I. Arachnoideen und Crustaceen.** (Studies on the plasticity of the nervous system. I. Arachnids and crustaceans.) *Pflüg. Arch. f. d. ges. Physiol.*, 1930, **224**, 793–820.—(*Biol. Abst.* VIII: 15457).

5887. **Bethe, A., & Woitas, E. Studien über die Plastizität des Nervensystems. II. Coleopteren, Käfer.** (Studies on the plasticity of the nervous system. II. Coleoptera, beetles.) *Pflüg. Arch. f. d. ges. Physiol.*, 1930, **224**, 821–835.—(*Biol. Abst.* VIII: 15457).

5888. **Bevelander, G. Response to light in the cercariae of *Bucephalus elegans*.** *Physiol. Zool.*, 1933, **6**, 289–305.—(*Biol. Abst.* VIII: 15416).

5889. **Carmichael, L. The genetic development of the kitten's capacity to right itself in the air when falling.** *J. Genet. Psychol.*, 1934, **44**, 453–458.—Observations with motion-picture aid showed: that at first kittens fall without any turning, that righting movements after the fall appear gradually more promptly, that turning in the air begins genetically in the neck region, and that turning in the air increases as a function of age, the full righting act appearing spasmodically to become increasingly regular.—*J. F. Dashiell* (North Carolina).

5890. **Crozier, W. J., & Hoagland, H. The study of living organisms.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 3–108.—Beginning in a quotation from Santayana: "Scientific psychology is a part of physics, or the study of nature; it is the record of how animals act," the present chapter deals with certain basic mechanisms of behavior in which organic performance is described and the possibility of prediction indicated in relation to the magnitude of known variables. Simple and compound tropisms are first considered. Here the relationship between behavior and stimulus change is given in terms of a generalized mathematical formulation and the relationship between this behavior and receptor mechanisms and genetics indicated. An application of the Arrhenius equation in a consideration of "chemical pace makers" and behavior is next presented. Here even the judgments of duration of a human subject at different temperatures are brought under this general law. "Spontaneous" activity is also considered. A bibliography of 233 titles is appended.—*L. Carmichael* (Brown).

5891. **James, W. T. A conditioned response of two escape reflex systems of the guinea pig and the significance of the study for comparative work.** *J. Genet. Psychol.*, 1934, **44**, 449–453.—Whereas a response involving the total escape mechanism (running) was readily conditioned, a localized defense reflex of the right foreleg was slowly conditioned, and that after a postural set to run had appeared. It is argued that the conditioned reflex method is thus indicated as useful in studying the development of

functions in cord and cerebrospinal tracts.—*J. F. Dashiell* (North Carolina).

5892. **Jordan, H. J., & Terwiel, G. J. Ueber einige Reflexe in Beziehung zur vermutlichen Lebensweise bei *Trochus erythraeus* Chemnitz.** (Some reflexes, in relation to the supposed habits of *T. erythraeus*.) *Tijdsch. Nederland. Dierk. Vereen.*, 1931, **2**, 166–168.—(*Biol. Abst.* VIII: 15420).

5893. **Lutz, F. E., & Grisewood, E. N. Reactions of *Drosophila* to 2537Å radiation.** *Amer. Mus. Novitates*, 1934, No. 706. Pp. 14.—*Drosophila* is shown to be capable of visual discrimination in the ultra-violet region of the spectrum.—*C. H. Graham* (Clark).

5894. **Mintz, B., & Stone, L. S. Transplantation of taste organs in adult *Triturus viridescens*.** *Proc. Soc. Exper. Biol. & Med.*, 1934, **31**, 1080–1082.—These investigations attempt to examine the relationship between the taste organs and their gustatory fibers in the adult salamander. Small segments from the tip of the tongue were transplanted to various parts of the body. Results show that taste organs can exist apart from gustatory fibers for at least 6 months in the adult salamander. Whether other nerve fibers may influence the taste organs is not known. Some evidence for formation of new organs in adult tongues by budding is indicated.—*P. Seckler* (Radcliffe).

5895. **Patrick, J. R., & Laughlin, R. M. Is the wall-seeking tendency in the white rat an instinct?** *J. Genet. Psychol.*, 1934, **44**, 378–389.—Rats placed at seven days of age, along with their mother, in a wide enclosure with glass walls and no bedding or other shadow-casting materials, were allowed to grow here until five weeks old. They were then tested in an alley leading to a fan-like opening with diverging walls and wide open space, also in an activity maze. In the former these experimental animals showed more readiness in leaving the walls to venture out into the open area than did control animals raised in nests of the usual type; in the latter maze the experimental animals manifested more exploratory tendency. It is concluded that early life experiences account for the wall-seeking behavior so commonly observed.—*J. F. Dashiell* (North Carolina).

5896. **Rochon-Duvigneaud, A. L'indépendence des mouvements oculaires chez amammaliens.** (Independence of visual movements among the lower vertebrates.) *J. de psychol.*, 1934, **31**, 462–466.—Among vertebrates below the mammals the movements of one eye are independent of those of the other. The contrasted types of eye movements seem to be due to the presence of two different oculo-motor systems of innervation. One system seems to belong to the mammals and the other to the rest of the vertebrates.—*P. S. de Q. Cabot* (Harvard).

5897. **Smith, K. U. Visual discrimination in the cat: I. The capacity of the cat for visual figure discrimination.** *J. Genet. Psychol.*, 1934, **44**, 301–320.—After preliminary training to depress levers before doors to obtain food just behind them, cats were tested for ability to react positively to a triangle and negatively to a circle mounted on the doors. In some cases an electric shock punishment was employed. All seven cats learned the discrimination—which is in line with work on other animals. The punishment employed interfered with, or at least did not aid, the learning. Significant factors in form discrimination by the cat are to be treated later.—*J. F. Dashiell* (North Carolina).

5898. **Sobol, E. D. K voprosu ob orientirovochnoi sposobnosti pochtovykh golubei pod vliianiem travmy labirinta.** (Orienting ability of carrier pigeons with injured labyrinths.) *Voenno-med. zh.*, 1930, **1**, 75–84.—Experiments were performed on 33 carrier pigeons by permitting them to fly 0.5–38 km. to the same station. None of the pigeons ever took the correct direction immediately, but always went through a series of trials, the time required for orientation decreasing with each experiment. The orientation time was shorter in clear weather than in cloudy and especially foggy or rainy weather. A change in geographic appearance (a fall of snow) lengthened the time markedly, often increasing it above the time required for the first experiment (before training). Bilateral electrocautery of the horizontal semicircular canals was followed by violent horizontal head movements, the animals losing their balance and falling to the ground. The flying ability was restored 24–45 days after the operation, the animals being able to cover the original distance (with the original orientation) 53–58 days after the operation. The original flying capacity and orientation were restored 11 days after a unilateral electrocautery of the labyrinth. The author concludes that for short distances the carrier pigeons orient themselves by means of vision, the vestibular apparatus being a secondary factor if present at all. Possibly the first moments of orientation, especially in long distance flights, are accomplished by means of the vestibular apparatus.—(*Biol. Abst.* VIII: 15425).

5899. **Sumner, F. B. The differing effects of different parts of the visual field upon the chromatophore responses of fishes.** *Biol. Bull.*, 1933, **65**, 266–282.—(*Biol. Abst.* VIII: 15426).

5900. **Ten Cate, J. Unisegmental reflexes in the dogfish.** *J. Physiol.*, 1934, **82**, 179–184.—The animal was decerebrated by an incision behind the optic lobes and a part of the spinal cord was isolated from the rest of the central nervous system. Unisegmental spinal reflexes were still obtained for this segment. It is found that the afferent stimuli are conducted to the motor centers of the ventral pair of roots just as much along the dorsal root lying cranial to it as along that lying caudal to it.—*M. A. Rubin* (Clark).

5901. **Twitty, V. C., & Johnson, H. H. Motor inhibition in *Amblystoma* produced by *Triturus* transplants.** *Science*, 1934, **80**, 78–79.—A discussion of the effects of *Triturus* transplants on *Amblystoma*, and an examination of the possible causes of the motor paralysis induced in various forms of *Amblystoma* by transplants of different forms of *Triturus*. An interesting effect of temperature was noted in one form, namely, that the usual paralysis was absent

when the animals were kept in a cool (12–14° C.) room. Possible explanations for this effect are suggested.—*P. Seckler* (Radcliffe).

5902. **Verlaine, L. L'instinct et l'intelligence chez les hyménoptères. 23. Le relatif et l'absolu dans l'appréciation des distances chez les guêpes.** (Instinct and intelligence among Hymenoptera. The relative and the absolute in the estimation of distances by wasps.) *J. de psychol.*, 1934, **31**, 396–407.—Whether it is a question of visual forms, the discrimination of size or of light intensities or the discovery of food by smell, the various stages in the recognition of objects by the social species of Hymenoptera are well characterized. The general and vague "idea" of a nest and its situation which seems to be immediately formed never reaches the clarity of an "image" because correlative mental states induce economy. Binocular vision has been shown to be indispensable among wasps and vertebrates in the localization of objects at a distance. In the estimation of distances and in the visual and olfactory localization of objects by wasps, the relative precedes the absolute. First estimates are very vague, but wasps can be easily trained to localize effectively a nest when still young and inexperienced in orientation. When the position of a nest remains fixed, the wasp's journey is almost automatically undertaken. Sensory cues are gradually eliminated and a kind of kinesthetic memory seems to be registered. This automatic behavior is not shown when food is placed at different distances from a fixed point. The wasp can reach the food at either short or long range because it has learned to recognize and localize the food containers.—*P. S. de Q. Cabot* (Harvard).

5903. **Walton, W. R. The reaction of earthworms to alternating current of electricity in the soil.** *Proc. Ent. Soc. Washington*, 1933, **35**, No. 2, 24–27.—(*Biol. Abst.* VIII: 15427).

5904. **Wheeler, W. M. Animal societies.** *Scient. Mo.*, 1934, **39**, 289–301.—Seven categories of consociations are suggested, not reducible to a single basis such as a social instinct. All the main forms of insect social organization were completed by Tertiary times. "The problem of the male" has been differently solved by different animal orders.—*J. F. Dashiell* (North Carolina).

[See also abstracts 5734, 5749, 5780, 5807, 5814, 5828, 5832, 5833, 5849, 5878.]

EVOLUTION AND HEREDITY

5905. **Boháč, A. L'influence de l'irréligiosité sur la natalité en Bohême (Tchécoslovaquie).** (The influence of irreligiousness on the birth rate in Bohemia (Czechoslovakia).) *Metron*, 1934, **11**, 65–73.—After the downfall of the Hapsburg empire and the establishment of the Czechoslovak Republic, a great anti-Catholic movement took place in Bohemia. Data on births between 1922 and 1929 showed the birth rate among the unconfessed population to be below that for the avowed Christians. The illegitimate birth rate was lowest among Israelites and Czechoslovak Protestants and highest among Catholics and German Protestants, with the unconfessed population falling near the middle of the range. The difference between the illegitimate birth rates among Czechoslovak and German Protestants indicates the importance of other factors than religiousness, but the data as a whole show that irreligiousness constitutes one of the factors contributing to the diminution of the birth rate.—*P. J. Rulon* (Harvard).

5906. **Chapman, R. N., & Wang, W. Y. An experimental analysis of the cause of population fluctuations.** *Science*, 1934, **80**, 297–298.—Following an analysis of the rise and subsequent rapid fall in four flour-beetle egg populations, the authors conclude that population systems of flour beetles produce a resistance to their own potential rate of increase which is responsible for the decrease in the egg population which occurs early in its history.—*P. Seckler* (Hartford, Conn.)

5907. **Hogben, L. The interaction of heredity and environment.** *J. Ment. Sci.*, 1933, **79**, 590–601.—It is the author's contention that an enlarged view of the role of the gene in development is necessary in the study of heredity, if that study is to advance; and this advance cannot be gained without a closer study of the environment. Neither can the study of the environment be advanced without a closer study of heredity. The two kinds of inquiry must always go hand in hand. Mental inheritance is therefore not a problem of genetics alone; it demands all that the geneticist can contribute to the recognition of how the characteristics of an organism are influenced by those of its ancestors; it calls for all that the nerve physiologist can impart about the way in which the characteristics of an organism are influenced by the changing pattern of stimuli to which it is subject. The significance of the present point of view in the study of mental disorders is discussed.—*H. W. Karn* (Clark).

5908. **Morgan, T. H. Mechanisms and laws of heredity.** In *A Handbook of General Experimental Psychology*. Worcester, Mass.: Clark University Press, 1934. Pp. 109–154.—In this chapter a review is presented of the reasons on which the doctrine of the inheritance of acquired characters must be rejected. The mechanism of Mendelian heredity is next summarized. The problem of human inheritance and psychology is next treated. In conclusion it is asserted that "Until more definite information is obtainable concerning mental traits and emotional reactions, some of us remain extremely skeptical of the crude and often forced attempts that have been made so far to determine what is inherited and what is acquired after birth." A bibliography of 240 titles is appended.—*L. Carmichael* (Brown).

5909. **Wilson, P. T. A study of twins with special reference to heredity as a factor determining differences in environment.** *Human Biol.*, 1934, **6**, 324–354.—70 identical, 69 like-sexed fraternal and 55 opposite-sex twin pairs enrolled in California junior and senior high schools were studied with respect to intra-pair differences. Greatest environmental differences occur with twins of opposite sex, more occur for fraternal and less for identical twins. The previous

view that intra-pair differences in environment are about the same for identical and fraternal pairs is contradicted. "The data indicate that this influence of heredity upon the individual's 'choice' of environment varies *specifically* with: (1) his heredity; (2) the phase of environment in question; and (3) the opportunities that his general milieu offers for the operation of 'choice.' "—*O. W. Richards* (Yale).

[**See also abstracts 5799, 5991, 5996.**]

SPECIAL MENTAL CONDITIONS

5910. **Abrams, M. H. The milk of paradise; the effect of opium visions on the works of De Quincey, Crabbe, Francis Thompson, and Coleridge.** (Harvard honors theses in English, No. 7.) Cambridge: Harvard Univ. Press, 1934. Pp. 97. $1.25.—*R. R. Willoughby* (Clark).

5911. **Anderson, S. E. Psyche the immortal (Part IX).** *J. Amer. Soc. Psych. Res.*, 1934, **28**, 94–103.—*J. B. Rhine* (Duke).

5912. **Bergler, E. The psychoanalysis of the uncanny.** *Int. J. Psychoanal.*, 1934, **15**, 215–244.—The sense of the uncanny arises from an alarm at our own omnipotence which for a few moments is imagined to exist plus the consequence of castration of which childhood experiences cause anticipation. The mechanism is unconscious and protective. Dread of one's self, combined with dread of others, results in the super-ego taking over the function of parental authority which in earliest childhood was not yet introjected; thus the mechanism serves the purposes of the super-ego. Further, a sense of the uncanny may be secondarily enjoyed as an anxiety-pleasure and masochistically induced over and over again. Various examples and types of the sense of the uncanny are given and discussed for their significance. —*M. H. Erickson* (Eloise Hospital and Infirmary).

5913. **Bond, F. B., & Lawton, S. U. Do psychic phenomena prove survival?** *J. Amer. Soc. Psych. Res.*, 1934, 131–137.—A debate, with Bond on the affirmative side.—*J. B. Rhine* (Duke).

5914. **Bunker, H. A. The voice as (female) phallus.** *Psychoanal. Quar.*, 1934, **3**, 391–429.—The quality of the voice as one of the major secondary sex characteristics and its role as a sensitive reflector of emotional states leads to an unconscious correlation of the voice with masculinity or femininity. A case is presented in detail of the analytic findings on a male patient who had equated a female voice with a female phallus and who was thereby a fetishist of an unusual type. The analysis disclosed two types of fetishes, one the feminine voice, the other boots. These fetishes had served as defense mechanisms against castration anxiety and as a means of denial of castration and reassurance in regard to it. There follows a discussion of the destructive allurements of the female singing voice in mythological accounts, particularly that of the Lorelei and the sirens of Greece, and of the exemplification of fears, anxieties, and unconscious mechanisms contained in the various myths.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5915. **Carington, W. The quantitative study of trance personalities. Part 1, Preliminary studies: Mrs. Garrett; Rudi Schneider; Mrs. Leonard.** *Proc. Soc. Psych. Res.*, 1934, **42**, 173–240.—A comparison was made of the trance personalities of the three "mediums" named with the normal personalities in each case. The comparison was made to ascertain whether there was independence shown by the two personality states. The methods were word-association tests, with reaction time and galvanometric response measurements. The logic of the method was as follows: Earlier work by the author showed that such measures taken on the same person from time to time give high correlations with each other. But measures from person to person give low correlations. Low correlation between the trance and normal personalities of a medium would therefore show independence; high correlations, that the two were merely multiple expressions of the same individual mind. In the case of Rudi Schneider the correlations showed, according to the logic of the author, that the trance and normal personalities were essentially one. In the other two mediums, the correlations convinced the author of the independence of the trance and normal personalities. The author gives a long review of a similar study (see VIII: 4063) made by Hereward Carrington, using the same method (which is due to the author) and one of the same mediums, and arriving at similar conclusions.—*J. B. Rhine* (Duke).

5916. **Cochrane, A. L. Elie Metschnikoff and his theory of an "instinct de la mort."** *Int. J. Psychoanal.*, 1934, **15**, 265–270.—Metschnikoff's philosophy of life, particularly his formulation of a "Todestrieb," is discussed and compared with Freud's formulation of the same idea. Striking similarities are the idea of a latent instinct controlling the length of life, the conclusion drawn from natural death to a death instinct, the emphasis on the contrast between the chief instincts ("les instincts de la vie" and "de la mort" on the one hand, and Eros and Thanatos on the other), the use of biological evidence to elucidate psychological problems, the idea of a latent instinct which could be brought to the surface, and that of psychical disharmony which could be solved by application of the results of scientific study.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5917. **Federn, P. The analysis of psychotics.** *Int. J. Psychoanal.*, 1934, **15**, 209–214.—The psychoanalysis of psychotic patients depends largely upon the helpfulness of the environment, particularly the patient's family. Such patients are susceptible to analysis if capable of transference relationship, if a part of their ego has insight into the abnormal mental state, and if a part of their personality is directed toward reality. The technique of analysis must be modified to meet the individual patient. Regression must not be increased. Often the analyst must give help in extra-analytic situations. "Encapsulation" of the psychotic reactions often suffices for a social recovery and may be a legitimate aim of therapy. Throughout the analytic procedure, therapy should be directed toward the counteraction of flight tenden-

cies. An attitude of sympathy and sincerity is essential in every step and every progressive step must be made with great caution.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5918. **Federn, P. The awakening of the ego in dreams.** *Int. J. Psychoanal.*, 1934, **15**, 296–301.—The term *orthriogenesis* is used to express the ego's recapitulation of its genesis in the moment after awakening from sleep, in which state its cathexis is limited. The author proceeds to discuss the role of the ego in dreams, the nature and extent of its activities, the relation of the dream-ego to the ego of the waking state, and the existence of various levels of cathexis for the dream-ego. He presents postulates to serve as a basis for an ego-psychology, which consists of a proper definition and delimitation of the ego and the topography of the ego in relation to consciousness, to the preconscious, to the external world, and to the inter-relationships of libidinally cathected ego-boundaries.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5919. **Feigenbaum, D. Clinical fragments.** *Psychoanal. Quar.*, 1934, **3**, 363–390.—A number of clinical fragments are presented to illustrate various manifestations. The analysis of a slip of the pen disclosed it to be a defensive phenomenon against an anxiety from which escape was effected by the production of another but identical anxiety. Laughter during an analysis betrayed a negative therapeutic action and was expressive of aversion to improvement. Uterus fantasies with ejaculatio precox in one instance led to a birthday gift which was a condensation of the giver's idea of the uterus and his wish to be impregnated, and in the second case illustrated the use of resistance under the pretext of improvement to escape analysis by means of utero-regressive cravings. The belief in heredity in one patient was found to be an unconscious belief that a castrated woman would give birth to a deformed child. The analysis by a catatonic of her negativism disclosed it to be a masochistic disguise of her sadism. These and other cases are elaborated upon in discussion.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5920. **Garma, A. Los restos diurnos y el trabajo del sueño.** (The day remnant and the dream work.) *Arch. de neurobiol.*, 1933, **13**, 769–784.—A number of examples are discussed which indicate that there are two conditions which operate to bring about dreams: (1) the wish to sleep; and (2) the presence of an unsatisfied desire—the residual of experiences of the day. Dreams are hallucinatory satisfactions of various desires, and are sometimes symbolic in form, due to "censor deformation" in the Freudian sense.—*R. M. Bellows* (Ohio State).

5921. **Gerendasy, J. Tests for alcoholic intoxication.** *Med. Rec.*, 1934, **140**, 11–14.—This is a summary of the conclusions and recommendations of a committee to determine tests for alcoholic intoxication. The article treats procedure in Great Britain, in the Royal Navy, in Denmark, France, and the United States. In the United States it is pointed out that there are 15 points to be studied at the time of examination, including tests of speech, action, appearance, equilibrium, gait, memory, odor of alcohol, condition of the tongue and pupils, handwriting, and health history. It is suggested that a differential diagnosis be made between alcoholism and head injuries, diabetes, hypoglycemia, the active effect of drugs, carbon monoxide poisoning, vascular lesions of the brain. The author points out that there are a number of tests which can be used, and concludes that a knowledge of the law of each state is helpful. He states that up to the present article there has been no clear summary of the tests for alcoholic intoxication.—*L. S. Selling* (Eloise Hospital and Infirmary).

5922. **Hamilton, T. G. The Winnipeg group mediumship.** *J. Amer. Soc. Psych. Res.*, 1934, 117–130.—An account of seance phenomena of the so-called teleplastic type, with two photographs.—*J. B. Rhine* (Duke).

5923. **Harrington, M. Wish-hunting in the unconscious.** New York: Macmillan, 1934. Pp. 189. $2.50.—The author presents his concept of psychoanalysis and criticizes it in detail under five heads: theory, technique, nature of the evidence, therapeutic value, and popularity. In a sixth chapter he presents a system of psychophysiology, psychopathology, and mental hygiene which he offers as an alternative to psychoanalysis.—*R. R. Willoughby* (Clark).

5924. **Hendrick, I. Facts and theories of psychoanalysis.** New York: Knopf, 1934. Pp. xii + 308. $3.00.—This volume, divided into four parts, constitutes a general presentation of the facts upon which psychoanalysis is built and the theories developed from them. Part I presents the psychological data and psychoanalytic observations upon which are built the concepts of the unconscious, psychosexuality, punishment fantasies, and psychoneurosis. Part II presents the psychoanalytic theory of instincts, the theory of psychosexuality and aggression, and the structure of the total personality. Part III is devoted to therapy by psychoanalysis, in which the psychoanalytic method is discussed in relation to the technical principles and the progressive steps in its development, course and theory. This is followed by the elaboration of the indications for psychoanalytic treatment and prognosis, symptomatic indications, analyzability of patients, therapeutic results of psychoanalysis, and psychoanalysis of children. Part IV discusses the present status of psychoanalysis in relation to professional organization, requisite training, relation to psychiatry, and to the schools of Jung, Adler, and Rank. A 21-page glossary of technical terms is appended, followed by reading suggestions and an index.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5925. **Holstijn, A. J. W. Oral erotism in paraphrenia: facts and theories.** *Int. J. Psychoanal.*, 1934, **15**, 160–186.—In paraphrenics there exists in the mouth a peculiar state of excitation. Orality, pyknic traits, and an element of mania occur regularly in this group, with the manic symptoms originating in an accentuated oral erotism directed toward external objects. The delusions developed arise from

an elaboration of the oral erotism. With detachment of homosexual libido from external objects it is regressively projected upon the world through either the mouth or the anus, thereby giving rise to a feeling of persecution which in turn leads to delusions of eating and being eaten. The cathexis of ideas of words represents the schizophrenic's attempt at recovery, but from these cathexes delusions arise, springing both from the complexes expressed and from the pressure of thoughts and speech occasioning the progressive elaboration of delusional trends. The unification of mental processes is more readily achieved by patients with the stronger oral erotism.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5926. **Horney, K. Restricted applications of psychoanalysis to social work.** *Family*, 1934, **15**, 169–173.—The author points out the desirability of some knowledge of the psychoanalytic technique in the preparation for social work. The object is not that the worker may attempt to analyze or treat the deeper neuroses, but that she may be able to recognize the difference between a deep-seated neurosis and a minor conflict and attempt to relieve the immediate situation in both cases.—*F. McKinney* (Missouri).

5927. **Ibañez, J. S. Estudio experimental sobre el sueño.** (Experimental study of sleep.) *Arch. de neurobiol.*, 1933, **13**, 793–804.—Regions of the nervous system which regulate states of wakefulness and sleep have been theoretically determined by reference to data from cases of anatomo-pathological subjects. These rather conflicting theories are reviewed. A technique was devised by which CaCl and KCl could be injected into the fourth ventricle of cats. Injection of CaCl brings about sleep, and there is a direct relation between the quantity of this substance injected and the intensity and duration of the sleep. With KCl injected into the fourth ventricle of cats the action is clearly excitatory. The intensity and temporal extent of the excitation is in direct proportion to the amount injected. The action is attributed to the influence of the ions Ca and K.—*R. M. Bellows* (Ohio State).

5928. **Kubie, L. S. Body symbolization and the development of language.** *Psychoanal. Quar.*, 1934, **3**, 430–444.—The symbolic representation of the body arises from the growth of knowledge and of language in response to the bodily function of instinctual tension. The first learning concerns itself with bodily things to which new knowledge automatically relates itself, and hence all new knowledge acquires points of reference to the body leading to the apperception of the external world in relation to bodily parts. "Body language" is used freely in childhood and later in dreams, delirious reactions, and symptom formation. Examples are given indicating two general types of symbolic representation: (1) the use of objects drawn from the outside world, and (2) the use of one part of the body to symbolize another part with substitution either toward or away from the instinctual zone. Thus internal problems may be externalized upon external objects or translated from one part of the body to another.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5929. **Lindemann, E., & Malamud, W. Experimental analysis of the psychopathological effects of intoxicating drugs.** *Amer. J. Psychiat.*, 1934, **13**, 852–881.—The behavior of four schizophrenic and two psychoneurotic patients, when subjected to the effects of a series of four drugs (sodium amytal, cocaine hydrochloride, cannabis indica, and mescaline sulphate), was observed under experimental conditions. Two aspects of the research are emphasized by the authors: "(1) The fact that the psychopathological changes induced by the drugs are definitely related to the whole personality and the situation within which it functions, points to similar considerations in the study of psychiatric symptomatology in general. . . . (2) The physiological changes that are found along with those of a psychological nature indicate once more the intimate interrelationship of these two components of the individual." Discussion by H. S. Sullivan, A. A. Brill, and W. Malamud.—*N. Goldman* (Boston Psychopathic Hospital).

5930. **Oberndorf, C. P. Depersonalization in relation to erotization of thoughts.** *Int. J. Psychoanal.*, 1934, **15**, 271–295.—When in childhood actual libidinal attachments are thwarted, there may be recourse to thinking on the forbidden subject with libidinal investment of the thinking. Such a process resembles sublimation, and has for its goal the retrieving of the libidinal object. Through identifications, thinking may follow masculine or feminine patterns. Thus the mind becomes libidinally overinvested and the center of ambivalent identifications. Self-observations replace normal affects, since libido formerly externalized becomes narcissistically attached. A case is reported at length in which the thinking parent was of the opposite while the rejecting parent was of the same sex. Thus the super-ego was modeled after the latter, and erotization of thought followed identification with the former. Hence a clash between heterosexual and homosexual thinking occurred, with consequent development of a sense of depersonalization, which is essentially dependent upon such a clash between an identification and thought erotization.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5931. **Schmaltz, G. Die Auseinander-setzung mit dem Complex.** (The objectivation of the complex.) *Zentbl. f. Psychotherap.*, 1934, **7**, 254–259.—Schmaltz describes the therapeutic freeing of the unconscious by means of exorcising the complex. It can be conquered only on the level where it is rooted, i.e. the soul's vital layer. There is only one way—that which homo divinans has always used—magic rites, which consist in objectifying the complex and dealing with it in an immediately vital, entirely irrational manner. Schmaltz relates two illustrative cases: In the first the complex was destroyed in a dream by symbolic circumambulation. In the second a sadistic "demon" was cast out by repeating (on psychotherapeutic advice) an exorcising formula of the medieval church. These cures were not effected through rationalization or discovery of childhood trauma. This is not a method originated by psychotherapists, but self-help of the reparative powers of the unconscious, for which,

at best, the physician can only clear the path.—*M. E. Morse* (Baltimore, Md.)

5932. **Schmideberg, M. The play-analysis of a three-year-old girl.** *Int. J. Psychoanal.*, 1934, **15**, 245–264.—An account is given of the more significant material elicited in the analysis of a three-year-old girl, with a discussion of the psychological significance and meaning of the various items and a report of the clinical course and results of the analysis. Particularly, the material discloses the early development of the super-ego and the Oedipus complex, the existence of a series of nuclear Oedipus situations, the complexity of the concepts of castration complex and phallic phase, the role of the vagina in early childhood, the psychological importance of screaming, and the role of clothing in overcoming paranoid anxiety. —*M. H. Erickson* (Eloise Hospital and Infirmary).

5933. **Seelhammer, N. Die Individualpsychologie Alfred Adlers, dargestellt und kritisch untersucht vom Standpunkt der katholische Moraltheologie.** (The individual psychology of Alfred Adler, explained and critically examined from the standpoint of the Catholic moral theology.) *Abh. aus Ethik u. Moral*, 1934, **12**. Pp. 186.—*R. R. Willoughby* (Clark).

5934. **Stekel, W. Psychogenetic disturbances of vision.** (Trans. by L. S. London.) *Arch. Ophth.*, 1934, **12**, 38–44.—Beginning with a discussion of how individual interests determine percepts and concepts, the author proceeds to a discussion of cases in which color blindness, scotomata, inability to visualize, strabismus, and other visual disturbances are explained as manifestations of suppressed ideas. The author recognizes that such conditions are not always thus explicable.—*M. R. Stoll* (Mass. Eye and Ear Infirmary).

5935. **Sterba, R. The fate of the ego in analytic therapy.** *Int. J. Psychoanal.*, 1934, **15**, 117–126.—During analysis there occurs a dissociation of the ego into a part cathected with instinctual and defensive energy and a part focused upon reality and identified with the analyst. This dissociation is induced by means of the interpretation of the transference-situation and the defenses arising thereto. By means of this therapeutic ego-dissociation, a state of intellectual contemplation arises which permits the perception of the source or origin of instinctual behavior with a consequent understanding and re-ordering of cathexes. —*M. H. Erickson* (Eloise Hospital and Infirmary).

5936. **Strachey, J. The nature of the therapeutic action of psychoanalysis.** *Int. J. Psychoanal.*, 1934, **15**, 127–159.—The various procedures and phases of therapeutic psychoanalysis are discussed and the hypothesis is presented that the therapeutic results are obtained principally from an effective qualitative modification of the patient's super-ego, which opens the way for other substantial alterations and developments of the personality. This modification of the super-ego is achieved gradually through the agency of mutative interpretations rendered effective by the analyst's position as an auxiliary super-ego and as the object of the patient's id-impulses. In addition to the mutative interpretations as the ultimate operative factor in the therapeutic process other factors, such as suggestion, abreaction and reassurance, depending upon the particular personality, are of definite utility.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5937. **Szalai, A. "Infectious" parapraxes.** *Int. J. Psychoanal.*, 1934, **15**, 187–190.—Two cases of infectious parapraxes are presented to illustrate the hypothesis that the unconscious of one person may detect the slips of another person and be led in turn to reply in a similar manner unconsciously, thus giving the appearance of contagion.—*M. H. Erickson* (Eloise Hospital and Infirmary).

5938. **Zulliger, H. Prophetic dreams.** *Int. J. Psychoanal.*, 1934, **15**, 191–208.—Examples are given of dreams which seemed to be clear prophecies of subsequent events. Rigorous examination of the dream material and its psychic setting discloses that they actually referred not to the future but to the past, to things already existent in the unconscious of the dreamer. Thus a dream of the dreamer's death may signify an unconscious suicidal tendency awaiting expression. Errors in memory of correct chronology often account for veridical dreams, or the phenomenon of *déjà vu* may give a dream of new coloring; or the symbolic significance of the dream may permit its attachment to a subsequent event which is unrelated but possessed of a similar deep symbolic significance. Behind prophetic dreams is the force of narcissistic desire for power and knowledge, which gives them ready credence.—*M. H. Erickson* (Eloise Hospital and Infirmary).

[See also abstracts 5877, 5951, 5958, 5984, 5998, 6004.]

NERVOUS AND MENTAL DISORDERS

5939. **Achard, H. J. Neurasthenia, visceroptosis, and adrenal inadequacy.** *Med. Rec.*, 1934, **139**, 639–641.—Neurasthenia is called an American disease. In a certain percentage of cases, conditions may be traced to a deficiency of action in the adrenal glands. Other glands also may be involved. Visceroptosis is also associated with exhaustion of the adrenals. Status lymphaticus is often associated with neurasthenia or visceroptosis. For the patient's sake, it is worth while to study adrenal exhaustion cases thoroughly, for there is often physical, mental, and emotional inferiority associated with them.—*L. S. Selling* (Eloise Hospital).

5940. **[Anon.] Om begrepet aandssvak i lov om umyndiggjörelse.** (The concept of feeble-mindedness in the law on unfitness to manage one's affairs.) *Tidsskr. f. d. norske laegefor.*, 1934, **54**, 870–873.—A correspondence between the Norwegian Psychiatric Association and the Department of Justice, concerning the meaning and scope of the word "feeble-minded." From the legal point of view "feeble-mindedness," or the corresponding Norwegian word, includes both amentia and dementia in all degrees of manifestation where it is obvious that a person cannot take care of himself and his property.—*V. Coucheron-Jarl* (Mooseheart Laboratory for Child Research).

5941. **Bühler, B. Der Körperbau der Alcoholiker.** (The body type of alcoholics.) *Arch. f. Psychiat.*, 1934, **103**, 381–388.—The paper deals with 100 cases of chronic alcoholism from an institution. Of these, 37 were of the athletic type, 28 of the pyknic, 33 of the leptosome, while 2 cases were not classifiable. It appears from this that no one of the Kretschmer types is characteristic for alcoholics. The pyknics appeared most often in occupations characterized by easy physical work.—*P. Plaut* (Berlin).

5942. **Chalisov, M. A. O psikhohigienicheskoi rabote sredi bolnikh kliniki nevrozov.** (Mental-hygiene work among the patients of the clinic of neuroses.) *Sovet. psikhonevr.*, 1934, No. 2, 132–137.—The author discusses his experiences during one year of mental hygienic work in the clinic. The work was principally educational, the chief aim being to impress upon the patients the therapeutical value of labor.—*R. Smith* (Clark).

5943. **Coxe, W. W. New York state's program for the education of subnormals in the public schools.** *Ment. Hygiene*, 1934, **18**, 373–379.—The training and salaries for teachers of special classes are noted. The basis of determining the composition of the class is homogeneity of chronological age. Children eligible for special classes are those who have an IQ between 50 and 75 with mental ages between 5 and 10 years. Children below 50 IQ may enter if they do not interfere with the morale or the instruction. In communities where there are less than 15 children, and having only one special class, a few children with IQ's above 75 may enter. Such children may be enrolled temporarily, and the teacher then acts as their coaching teacher. If there is an IQ range of more than four years the class is limited to 18. If the chronological age is four years or less 22 is the maximum. If the work is departmental and the pupils are classified in homogeneous groups, the maximum enrolment is 25 in academic classes and 20 in shop classes. There is a state psychiatrist, psychologist, and supervisor of special classes. When the local school system has no trained examining staff, the cases are turned over to the Department of Mental Hygiene. In 1932–1933 there were more special classes in New York state than in any previous year. The total enrolment for 1932–1933 is approximately 18,000.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

5944. **Danowski, G. Beitrag zur Differentialdiagnose psychogener Störungen gegenüber Encephalitis epidemica.** (Contribution to the differential diagnosis of psychogenic disturbances as against epidemic encephalitis.) Königsberg: Raabe, 1934. Pp. 22.—*R. R. Willoughby* (Clark).

5945. **Di Bella, E. E. Mental hygiene aspects of the transient program.** *Ind. Bull. Char. & Correc.*, 1934, March, 55–60.—*C. M. Louttit* (Indiana).

5946. **Doll, E. A. Social adjustment of the mentally subnormal.** *J. Educ. Res.*, 1934, **28**, 36–43.—A discussion of the problem of the feeble-minded, in which it is pointed out that most of these individuals are found in the community and not in institutions. A discussion is presented of the plan in Belgium by which feeble-minded are cared for in families rather than in institutions. The social adjustment of these individuals is effected by adequate school instruction, systematic occupational adjustment, and sympathetic social supervision.—*S. W. Fernberger* (Pennsylvania).

5947. **Fremont-Smith, F. The influence of emotions in precipitating convulsions.** *Amer. J. Psychiat.*, 1934, **13**, 717–723.—In the literature emotion is often mentioned as one of the immediate causes of convulsions. 42 unselected private patients were studied to determine how frequently emotion acts as a precipitating factor. In 31 of these patients emotion was a precipitating factor; in 8, major or minor seizures were precipitated by emotion under observation. The author emphasizes that many of these patients had definite evidence of organic brain disease, which is considered as a predisposing factor. The emotion is believed to act through stimulation of the sympathetic nervous system, which precipitates the convulsion. Whether this occurs by cerebral vasoconstriction or by some other mechanism is not known.—*N. Goldman* (Boston Psychopathic Hospital).

5948. **Georgi, F. Pathogenese und Therapie des manisch-depressiven Irreseins.** (Pathogenesis and therapy of manic-depressive psychosis.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1934, **6**, 340–360.—This article is a report on experiments concerned with the relationship between manic-depressive psychosis and the activity of endocrine glands. The author performed experiments during a five-year period, studying cholesterin. The blood tests were taken from 456 patients and 21 normal persons. The main conclusion was that cholesterin circulation in endogenic depressives at the retrogressive stage varies significantly from the normal. This disturbance can be taken as an indication of faulty distribution of inner secretions. The author believes that these experiments point toward new methods of treatment in cases of manic-depressive psychosis. There is a bibliography.—*D. S. Oberlin* (Newark, Del.)

5949. **Goldenberg, M. A., & Nasonov, B. A. K strukture amentivnogo i delirioznogo sindromov.** (Contributions to the structure of the amentive-delirious syndromes.) *Sovet. psikhonevrol.*, 1934, No. 2, 33–45.—The authors studied a group of 20 patients suffering from exogenous psychotic reactions. They describe the amentive and the delirious syndromes which they found.—*R. Smith* (Clark).

5950. **Gonzalo, J. Los factores endogenos en la corea de Sydenham.** (Endogenous factors in Sydenham's chorea.) *Arch. de neurobiol.*, 1933, **13**, 903–918.—The fact that the endogenous or constitutional factor is indispensable for the choreal syndrome is indicated by the report of the observation of 6 case studies. Chorea is associated with a threefold set of factors: childhood, asthenic constitution, and feminine sex. These, plus a combination of environmental factors, bring about the malady.—*R. M. Bellows* (Ohio State).

5951. **Göttke, L. Ueber das Traumleben der Epileptiker.** (The dream life of epileptics.) *Arch. f.*

Psychiat., 1934, **101**, 136–163.—Every bodily stimulus as well as every bodily illness may have an influence upon dreams, but it does not follow that one can infer the underlying stimulus either from the formal structure of a dream or from its content. The dream life of feeble-minded persons is contrasted with that of normals. The dreams of epileptics diminish in frequency at the more advanced ages. In particular, the epileptic process as such seems to call forth an accelerated diminution of dreams, such as would otherwise be expected from the aging processes. The epileptic crisis is always dreamless, like sleep after a dream. Dreams about the crisis are strikingly rare. It cannot safely be concluded that a crisis may be initiated through a dream.—*P. Plaut* (Berlin).

5952. **Grosschopff, E. v. Neurose und Psychotherapie.** (Neurosis and psychotherapy.) *Psychiat.-Neur. Woch.*, 1934, **36**, No. 1.—Neurosis is a therapeutic, regulative process which has the function of uncovering or bringing into the open an inner condition which is becoming constantly more intolerable. It has nothing to do with weakness or with impaired germ plasm; it overtakes the strongest individuals as well as those of more ordinary capacity. Psychotherapy must remove the artificial barriers which prevent healthy development. The therapist must bring about an understanding of the nature, variety and course of the mental reactions and mechanisms through analysis of the conflicts and by any other appropriate means.—*P. Plaut* (Berlin).

5953. **Grosschopff, E. v. Heilung durch Kunst.** (Cure by means of art.) *Psychiat.-Neur. Woch.*, 1934, **36**, No. 5.—In art we have a pure psychic reaction of the unconscious; here an approach is opened up to the irrational levels of the neurotic. The author seeks to use art for practical purposes in this region; the preliminary stage is that of the dance, theater, concert, etc., in which artistic activity serves only as a diagnostic aid. Art first becomes a psychotherapeutic factor in the second, genuinely manipulative stage. The patient must learn to take pleasure in art in the same manner as in other medical means. —*P. Plaut* (Berlin).

5954. **Jacob-Klessner, E. Ueber pathologische Neugier und Mangel an Langeweile bei Encephalitis epidemica.** (Pathological curiosity and absence of ennui in encephalitis epidemica.) *Arch. f. Psychiat.*, 1934, **101**, 657–665.—Normal psychology has concerned itself almost not at all with the mental bases of curiosity and ennui. Ennui is the unpleasant feeling of the dragging of time, combined with a lack of interest in the immediately present inner and outer situation. In typical cases with pathological curiosity a diagnosis of encephalitic Parkinsonism can be made at an early stage, solely from the disappearance of typical attitudes; and particularly from the uncontrollable propensity of these patients to get themselves into active relationships with their surroundings. Most of these occurrences usually reduce to cases of seizing objects in the environment; an exaggerated wakefulness also appears. As for ennui, the attention of the patient is very much elevated above the level necessary for ordinary positions and actions, and there remains little surplus energy for other activities. The patients seem to external observation inactive and uninterested in the environment, but by reason of their exaggerated attention to position and movement they have a lack of ennui.—*P. Plaut* (Berlin).

5955. **Jahrreiss, W. Die angeborenen und früh erworbenen Schwachsinnzustände.** (Congenital and early developed feeble-mindedness.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1934, **6**, 380–390.—The author points out that the recent sterilization laws in Germany hold a practical significance for research on the subject of feeble-mindedness. A great many problems have arisen, among them the question of differentiating between inherited and congenital feeble-mindedness. The body of the article consists of a series of résumés of recent work in such fields as that of the relationship between feeble-mindedness and occupational background, mongolism in identical twins, neurological abnormalities, and many others of like nature. There is a bibliography.—*D. S. Oberlin* (Newark, Del.)

5956. **Kaufman, I. W. Die Schrift der Paralytiker vom psychiatrischen Standpunkte.** (The handwriting of the paralytic from the psychiatric standpoint.) *Psychiat.-Neur. Woch.*, 1933, **35**, 517–520.—There seem to be no specifically paralytic errors in handwriting; but errors of a sub-cortical type often appear, and no paralytic showed an errorless script. After fever treatment the degree of improvement of the abilities investigated showed a significant correspondence with that of the script. This relationship is most striking in immediate memory for logical verbal associations, in which the performance of the best writers was increased some 90%, while that of the poorest writers increased on the average only 24%. A parallel correspondence of almost the same amount was shown between retentive memory and the degree of improvement in handwriting.—*P. Plaut* (Berlin).

5957. **Kirk, S. A. The effects of remedial reading on the educational progress and personality adjustment of high-grade mentally deficient problem children: ten case studies.** *J. Juv. Res.*, 1934, **18**, 140–162.—Ten mentally deficient institution children who were having special difficulty in reading were given remedial training in the latter to determine the effects of such experience on school achievement and personality adjustment. The group (ave. CA 13–9, ave. IQ 75) made a mean gain of 1.2 grades in reading during an average of five months of training. The rate of their progress in reading was 5 times that of 100 unselected children in the institution school. Progress measured in terms of performance on the Stanford Achievement Test indicated the rate of gain of the former group to be twice that of the latter. Tests given 5 months after the cessation of the remedial work in reading, the period being spent in school, revealed that the experimental group progressed during the post-training interval in both reading and general achievement at about twice the

rate of the control group. Better class-room and personality adjustment was observed in a majority of the cases to parallel the gain in school achievement. The value of remedial work is discussed.—*H. L. Koch* (Chicago).

5958. **Lippman, H. S. Direct treatment work with children.** *Amer. J. Orthopsychiat.*, 1934, **4**, 374–381.—A discussion of case histories of children suffering from anxieties. Some success in the use of dream analysis is indicated.—*H. Peak* (Randolph-Macon).

5959. **Martz, E. W. Mortality among the mentally deficient during a twenty-five year period.** *Tr. School Bull.*, 1934, **31**, 185–197.—Observations were made on the deaths of 1273 patients in an Ohio institution for mentally deficient covering a period of 25 years. The mean death rate was 32.2 per 1000. 71% of deaths occurred between the ages of 10 and 30; in the general population this is a period of low incidence. 42.5% of deaths were from tuberculosis, 13% from pneumonia, 9.4% from cardio-vascular diseases, and 7.9% from epilepsy. Far more patients died during the first year of institutionalization than in subsequent years. The average age at death was 20.3 years.—*E. M. Achilles* (Columbia).

5960. **Meyer, A. Problema prepodavaniya psikhiatrii na osnove geneticheski dinamicheskogo napravleniya.** (The problem of teaching in psychiatry on the genetico-dynamical basis.) *Sovet. psikhonevrol.*, 1934, No. 2, 17–33.—The author discusses his method of teaching psychiatry. His goal is not the acquaintance of the student with the classification system and the diagnoses based thereon, but rather to teach him to estimate every case in the light of general medicine and all its branches, rather than from the standpoint of psychiatry. His work is thus based upon psychobiology, and he stresses the genetic-dynamical point of view.—*R. Smith* (Clark).

5961. **Mohr, F. Die seelischen Faktoren bei der Entstehung und Behandlung der Unfruchtbarkeit der Frauen.** (The psychic factors in the etiology and treatment of sterility in women.) *Zentbl. f. Psychotherap.*, 1934, **7**, 208–220.—Mohr discusses dyspareunia, frigidity and spontaneous abortion from the standpoint that, aside from congenital defects, there is no physical disease which is not in some way conditioned, maintained or aggravated by psychic factors, and conversely, every mental disturbance brings physical disturbances in its train. The immediate task of psychotherapy in regard to sterility is to bring about a reaction in women against the intellectual, vocational, individualistic-egoistic tendencies which have misled them in the last few decades and to awake a heroic, supra-personal attitude, which is demanded by the state and is closely related to religion. The power to transform the psychic into the physical is directly proportional to the strength of the belief in the power of transcendental factors.—*M. E. Morse* (Baltimore, Md.)

5962. **Moore, P. Mental attitudes of transients.** *Ind. Bull. Char. & Correct.*, 1934, March, 60–62.—*C. M. Louttit* (Indiana).

5963. **Newman, J. L. The thyroid gland in mental deficiency.** *J. Ment. Sci.*, 1933, **79**, 464–500.—This paper is an account of investigations representing a histological study of the thyroid glands of 90 defectives of both sexes between the ages of 1 and 19 who have died during the past 10 years at the Fountain Mental Hospital. Any concept of a "normal" thyroid is likely to prove misleading, since the gland is subject to the influence of many factors. Variations in appearances of the glands are very great and no constant findings could be established to connect mental deficiency with histological abnormality of the thyroid. Considered simply as children's thyroids, the glands showed a type of hyperplasia not seen in the adult, in which the epithelial cells grow syncytially and infiltrate the colloid. The latter may vary greatly in its appearance and its staining reactions. The state of nutrition of the patient seems to have no connection with the histological appearances of the gland. No close correlation could be found between the thymus and the thyroid.—*R. Smith* (Clark).

5964. **Nicole, J. E. Psychopathology.** Baltimore: Williams & Wilkins, 1934. Pp. 283. $4.75.—This is a handbook designed to provide a survey of the different current schools of psychopathology. It is diverse and deals particularly with schools of psychology and psychopathology which spring from individual men, such as Morton Prince's hypothesis of the unconscious, Freud's psychoanalysis, Adler's individual psychology, Rivers' theories of repression and suppression; also the views of Auden, Diblee, and Kinnier Wilson in regard to Rivers' hypothesis. There is a survey of Watson's behaviorism, including a list of names of those who have modified observational psychology. Kempf's psychology, based on the autonomic nervous system, and Berman's theories of the role of the endocrine glands are given a chapter each. Kretschmer's constitutional approach is discussed, and the chapter includes a discussion of Ewald's formulae, Marston's work, and that of the Italian morphological school. There are six other chapters besides those based on individual schools of thought; they deal with the biochemical and physiological contributions, with particular reference to metabolism; the psychogalvanic reflex; eidetic imagery; ethnological and sociological evidence; and various schools of pure psychology. There are two chapters dealing with applied psychology, three appendices, and a 22-page bibliography.—*L. S. Selling* (Eloise Hospital).

5965. **Notkin, J., & Jelliffe, S. E. The narcolepsies.** *Amer. J. Psychiat.*, 1934, **13**, 733–737.—A brief review of the literature and the suggestion "that we may be dealing in the narcolepsies with a condition related to the epilepsies, recognizing the same pathogenic mechanisms." Bibliography.—*N. Goldman* (Boston Psychopathic Hospital).

5966. **Osborne, O. T. The evaluation of symptoms.** *Med. Rec.*, 1934, **140**, 15–16.—The article discusses pain in the shoulder, back, and thorax, as well as that in the abdomen. There are five paragraphs dealing with headache and its causes. The author points

out that the use of a vibrator over the painful area will increase pulse rate if there is real pain present, to distinguish real pain from the assumed pain of the malingerer.—*L. S. Selling* (Eloise Hospital).

5967. **Parker, H. T. Fluctuations in the intelligence quotients of subnormal children.** *J. Juv. Res.*, 1934, **18,** 163–168.—An analysis was made of the results of several mental examinations given 552 subnormal children. The IQ's tended on the average to decrease from test to retest, the change being the greater the interval between the two examinations. The decrease was more extensive than the defective standardization of the test would lead one to expect. Children in special classes lost less in IQ than did the children remaining in the regular grades, while children transferred to special classes during the interval between the test and retest gained, on the average, rather than losing. The girls seemed to vary less than the boys and to reach their mental maturity somewhat earlier. There was evidence in the mental growth curves of a pre-pubertal spurt. This spurt was more abrupt in the case of the girls than in that of the boys. —*H. L. Koch* (Chicago).

5968. **Perry, J. S. Emotions as functional factors in the etiology and prognosis of disease.** *Med. Rec.*, 1934, **139,** 643–645.—Those who have observed closely the development of psychological thought in recent years realize that the distinctions that have grown up between mind and body are being gradually dissolved. Emotions may be seen as important etiological and prognostic factors in a number of diseases and conditions, particularly heart and gastrointestinal affections, tuberculosis, arthritis, diabetes, thyroid diseases, and high blood pressure. In the case of the heart, an ill-advised remark on the part of the physician produces bad results. The evidence for emotion as a cause for glucose in the urine is the increase in sugar due to sympathetic stimulation. There is a definite type of gastric neurosis characterized by many symptoms, such as diarrhea, constipation, hyperacidity, etc. Physicians should remember that certain people are predisposed to neurosis.—*L. S. Selling* (Eloise Hospital).

5969. **Petrov, S. P., Klochkova, K. V., Khasan, S. I., & Judin, T. I. Srednya veroyatnost zabolevaniya psikhicheskimi boleznyami i ee izmenchvost.** (The average probability of mental morbidity and its variability.) *Sovet. psikhonevr.*, 1934, No. 2, 99–127. —The authors collected 207 pedigrees among the peasants of the village of Goncharovka, containing 1807 brothers and sister of the probands. The probability index (Rüdin's method) of morbidity was .0067 for schizophrenia, .0072 for epilepsy, and .0032 for oligophrenia. There was not a single case of general paralysis. The authors do not consider these figures as constants characterizing a certain average morbidity in the population, but regard them as varying with the peculiarities of the social and economic life of the latter. It is emphasized that the continuously changing correlation of biotypes in the population is determined by social and economic factors as well as by the variability of phenotypical appearance. There does not exist any unchanging pure group in the population, and Rüdin's wish to use the average probability of disease as an abstract value for the construction of a universal "Erbprognosescala" is based on false premises. Only a change of the economic conditions of the working class can improve the biotypical structure of this class.—*R. Smith* (Clark).

5970. **Reeve, G. H. Demonstration as a method of education in training for psychiatric social work.** *Amer. J. Orthopsychiat.*, 1934, **4,** 359–364.—The Mental Hygiene Clinic of Mt. Sinai Hospital has found it advisable to supplement lectures to psychiatric social workers with observation of the psychiatrist's interview with the patient.—*H. Peak* (Randolph-Macon).

5971. **Rosanoff, A. J., & Inman-Kane, C. V. Relation of premature birth and under-weight condition at birth to mental deficiency.** *Amer. J. Psychiat.*, 1934, **13,** 829–852.—Etiologic factors in mental deficiency are classified as follows: pre-germinal, germinal, embryonic, fetal, natal, and as of various periods of post-natal development. Three types of etiologic mechanism are distinguished: simple (involving only one developmental period), multiple or variable, and complex. The authors present some newly gathered material having a direct bearing on the question of etiologic factors of mental deficiency which are operative in the fetal period of development. Several groups of monozygotic and dizygotic twins, of inferior and of superior intelligence, were studied by the authors. Their findings of cases of markedly unequal intellectual development in monozygotic twins and of the greater incidence of mental deficiency among multiple births than among single births indicated the existence of some factor or factors, operative in the fetal or the natal period of development or in both, and more often among twins than among single births. A brief review of the literature dealing with premature birth and under-weight condition at birth shows that the material on the part played by these factors in the etiology of mental deficiency is inconclusive. Consideration of a group of institutional cases of mental deficiency and of a large control group indicates to the authors that "the evidence seems conclusive to the effect that premature birth or under-weight condition at birth is an etiologic factor in mental deficiency. For the most part, if not entirely, the damage is caused by cerebral trauma occurring during birth. Premature and under-weight children are much more liable to suffer such damage at birth than are children born at full term and of normal weight. Prematurity and under-weight condition at birth are much more common in multiple than in single births; for that reason, and probably by the same mechanism, mental deficiency is produced more often in twins than in single births."—*N. Goldman* (Boston Psychopathic Hospital).

5972. **Sacristán, J. M. Las psicosis atípicas de la encefalitis crônica.** (Atypical psychoses of chronic encephalitis.) *Arch. de neurobiol.*, 1933, **13,** 871–898. —The study of chronic encephalitis has extended

from the field of the neurologist to that of the psychiatrist. The question of the possible interrelations between chronic encephalitis and schizophrenia is considered by presenting five case studies. There is no doubt that there are some psychoses which bear a close kinship to encephalitis, although decisive judgment concerning etiology cannot be given. While the syndrome of the encephalitis patient is not exactly and entirely typical of that of the schizophrenic, certain combinations of morbid symptoms are similar. —*R. M. Bellows* (Ohio State).

5973. **Sanz, E. F. La esquizofrenia en la infancia.** (Schizophrenia in childhood.) *Arch. de neurobiol.*, 1933, **13,** 737–742.—A psychoanalytic discussion of the case of a male patient of seven years suffering from shock at the death of the father, manifested in dreams and by fixation complexes. Schizophrenic behavior may appear in childhood as an indication of a latent predisposition toward dementia praecox, which may develop during or after adolescence if environmental factors contribute to enhance this predisposition.—*R. M. Bellows* (Ohio State).

5974. **Schachter, M. Quelques réflexions à propos d'un cas de phagomanie.** (Some reflections on a case of phagomania.) *J. belge de neur. et de psychiat.*, 1934, **34,** 359–361.—It is the view of the author that true phagomania is a typical psychic disorder, caused by an exaggeration of the self-preservative instinct, though the specific mechanism of the disturbance is not known. A fixed fear of dying from starvation is an important causal factor. While mere alimentary greediness may be modified by appropriate medico-social education, phagomania remains inaccessible to any medical treatment. The history of an illustrative case of a married woman of 55 years is briefly mentioned.—*H. Syz* (Cornell).

5975. **Schnidtmann, M. Fürsorgeerziehung und Rassenhygiene.** (Protective education and race hygiene.) *Psychiat.-Neur. Woch.*, 1933, **35,** No. 49.—In psychiatric examination of pupils referred for protective education, all those of whom there is suspicion of hereditary illness must be specially considered. It must be decided whether, in view of the special circumstances of the case, sterilization is indicated. A pupil for whom sterilization has been decided upon should not be released from custody before the operation has been carried out.—*P. Plaut* (Berlin).

5976. **Schwarz, R. S. The criminal insane under jurisdiction.** *Ment. Hygiene*, 1934, **18,** 452–461.—The need in court proceedings for having a standard method for recognizing the criminally insane is emphasized. The malingering offender could also be detected. The majority of offenses are easily recognizable as the criminal acts of an insane person. A number of cases are quoted of offenders whose pathological condition was not recognized in court. Soon after they were sentenced it was necessary to transfer them to a state hospital.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

5977. **Seif, L. Weltanschauung und Psychotherapie.** (World-view and psychotherapy.) *Zentbl. f. Psychotherap.*, 1934, **7,** 193–197.—The psychotherapeutic situation is a social one. The solution of neurotic conflicts demands the world-view of supra-individual idealism, and a social psychology, i.e. the psychology of idealism. The value of every individual and of his life is measured by the sincerity of his devotion to the common good.—*M. E. Morse* (Baltimore, Md.)

5978. **Speer, E. Religion und Psychotherapie.** (Religion and psychotherapy.) *Psychiat.-Neur. Woch.*, 1933, **35,** No. 42–43.—The complex and close relationships between religion and psychotherapy are set forth. It is not a philosophical rapprochement between pastor and medical psychotherapist which is required, but a rapprochement which springs directly from practical work. Whoever practices psychotherapy must have a religious viewpoint; only the man of priestly temperament can be a complete psychotherapist. But psychotherapy may never turn into religion; this would be its undoing.—*P. Plaut* (Berlin).

5979. **Stauder, K. H. Zur Kenntnis des Weltuntergangserlebnisses in dem epileptischen Ausnahmezuständen.** (Observations on the experience of cosmic collapse in the epileptic crisis.) *Arch. f. Psychiat.*, 1934, **101,** 762–779.—The epileptic's experience of cosmic collapse is not to be understood by means of the undefined general state of the epileptic mentality, but is based on the objective alteration of sensory functions, particularly on the alteration of the optic functions by labyrinth disturbance. The condition is similar to that in mescal intoxication. —*P. Plaut* (Berlin).

5980. **Stevenson, G. S. Community clinics as training centers for psychiatrists.** *Ment. Hygiene*, 1934, **18,** 353–361.—The advantages and disadvantages of community guidance clinics as training centers for psychiatrists are summarized. These clinics offer the widest range of children's cases. It is the best approach to an intimate appreciation of the community as a whole, because the clinic works with social agencies and schools. Such training enables the student to observe a wide range of cases, grading from normal to those that are extremely psychopathic in nature. However, it does not provide a wide acquaintance with adult psychopathy, despite the fact that the study of parents borders on this field. As a rule the community clinic does not give the psychiatrist the confidence for rapid diagnostic procedure that he is often called upon to make. He may lose perspective and learn to depend too much upon others for work that he should do. Finally, he may become so involved in details that he loses his appreciation for the patient's point of view.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

5981. **Thielen, J. Beiträge zur Frage der erstarrten Melancholien.** (Contributions on the problem of the stuporous melancholias.) *Psychiat.-Neur. Woch.*, 1934, **36,** No. 5.—The paper is concerned with women patients of the Ansbach hospital; for among 550 men only one case of stuporous melancholia was observed. The women therefore show an overwhelming majority of all cases; it is very probable that the bodily proc-

esses concerned in involution are of special significance in this respect. With regard to the question of premorbid personality, it is virtually certain that no pure schizothymic or cyclothymic personalities are represented; the majority approach the schizoid melancholic type. In the course of the disease the stupor and superficiality of affect begin, on the average, after about two years. Catamneses of discharged patients show that stuporous melancholias can be completely cured.—*P. Plaut* (Berlin).

5982. **Tokay, L. Konstitution und Psychotherapie.** (Constitution and psychotherapy.) *Psychiat.-Neur. Woch.*, 1934, **36**, No. 35.—In psychotherapy as well as in pathogenesis constitution is of great importance. If the physician knows the constitution of the patient, he can employ the most suitable type of treatment; he can reckon in advance on the possibilities to be expected, and can protect himself against them or avoid them. His activity can be extended in this way into the field of mental hygiene.—*P. Plaut* (Berlin).

5983. **Valenciano, L. Sobre las psicosis de la enfancia no demenciales.** (Childhood psychoses without dementia.) *Arch. de neurobiol.*, 1933, **13**, 993–1016.—Two classes of childhood psychoses are distinguished: those which rapidly lead to dementia, and those which, upon clinical diagnosis, do not evidence the syndrome of dementia. A precise diagnosis in the earlier stages of the psychoses is of great value. A minute clinical study of one case is reviewed in detail, beginning at the age of four years. In the analysis of the case certain hereditary predispositions are pointed out; antecedent prepsychotic dispositions such as severe child illness and early indications of prepsychotic personality are presented. The termination of the psychotic episode took place after puberty, at which time the subject was considered normal. Such genetic clinical pictures are of value from the standpoint of developing diagnostic technique, and contribute to a better understanding of the psychotic personality.—*R. M. Bellows* (Ohio State).

5984. **[Various.] Symposium, 1934.** *Amer. J. Orthopsychiat.*, 1934, **4**, 323–358.—Report of a group discussion (American Orthopsychiatric Association) of a therapeutic procedure employed with a ten-year-old boy with personality difficulties involving argumentativeness, aggressiveness, domineering attitudes, and cruelty.—*H. Peak* (Randolph-Macon).

5985. **Wallin, J. E. W. State provision for mentally handicapped children in U. S.** *Tr. School Bull.*, 1934, **31**, 69–76.—The principles which should govern state subsidies for handicapped children are presented. The plea is that handicapped children have every right that normal children possess. The program of education needed cannot be economically and efficiently supplied in the regular grades. A chart showing what ten states are doing for the blind, deaf, crippled, and other handicapped is also given. Requirements of training for teachers are discussed. —*E. M. Achilles* (Columbia).

5986. **Willemse, W. Typologische Untersuchungen über das Verhalten von jugendlichen Psychopathen in Konfliktsituationen.** (Typological investigations of the behavior of young psychopaths in conflict situations.) *Zsch. f. angew. Psychol.*, 1934, **46**, 273–357.—In the introduction various systems of psychological typology are discussed, the author himself tending toward a dynamic rather than a structuralistic point of view. The purpose of the study was to discover and describe types of behavior of psychopaths as they reacted to four different tasks. 21 of the 60 subjects showed susceptibility to conflicts (e.g., between the attempt to reach a high score and the fear of failure) while the rest did not. The latter type showed more optimism than the first; their aims had a higher "degree of reality"; they had more failures, but were less disturbed by them. It was possible to distinguish several sub-types in this group. 36 references.—*K. F. Muenzinger* (Colorado).

5987. **Zilboorg, G. The problem of constitution in psychopathology.** *Psychoanal. Quar.*, 1934, **3**, 339–362.—The author discusses traditional ways of thinking about mental diseases, first a belief in a purely organic basis, followed by a belief in a humoral origin, and now succeeded by the concept of mental diseases as entities comparable to the entities of physical disease. Persistence of traditional ways of thinking is now evidenced in the tendency to postulate a constitutional factor. The validity of this postulate requires determination, and its study must include both the subjective history of the patient—what he thinks, feels, and does constitutes the symptomatology —and the identifications which influenced growth and development. Psychoanalysis, by study of etiological factors and their quantitative relationships to each other, makes possible an approach to the problem of differentiating between elements representing heredity and those representing psychic history and development. Two case histories are presented to show the possibilities of approaching this problem of studying the inter-relationship of and the differentiation between constitutional forces and psychic experiences.—*M. H. Erickson* (Eloise Hospital and Infirmary).

[See also abstracts 5737, 5880, 5917, 5923, 5925, 5929, 5988, 5994, 6001, 6003, 6066, 6127, 6143.]

PERSONALITY AND CHARACTER

5988. **Barglowski, D. Beruf, Trieb und Korperbau.** (Occupation, drive and physique.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1934, **150**, 122–145.—A contribution to Kretschmer's theory of constitutional types based upon an investigation of 616 people, the majority of whom were patients at the Marburg university clinic for nervous diseases. The athletic type predominates in occupations demanding strong physique. The most independent persons are found among the pyknics, the least among the athletics. Athletics have more cases among them of "social retrogression" than leptosomes have. Among men, leptosomes and athletics reach puberty later than pyknics. The average marrying age is highest among pyknics. More so-called successful marriages and a

greater number of early marriages (ages 18–21) are found among athletics. Among women the marrying age is lowest among pyknics and highest among athletics. No essential typical differences concerning either frequency of marriage or production of offspring were found to exist. Pyknics menstruate earlier than athletics and these earlier than leptosomes. Menstrual difficulties appear more frequently among athletics and seldom among pyknics. The results of the inquiry do not confirm the belief that men of action especially successful in life are found among athletics. An additional study of 14 secondary school students suggests further work in this field.—*P. S. de Q. Cabot* (Harvard).

5989. **Bernreuter, R. G. The imbrication of tests of introversion-extroversion and neurotic tendency.** *J. Soc. Psychol.*, 1934, **5**, 184–201.—In order to test the degree of overlapping between scales measuring introversion and neurotic tendency, a group of seven tests was given to 157 men students of engineering. The Root, Heidbreder, Neymann-Kohlstedt and Colgate C4 tests of introversion were used, together with the Willoughby revision of the Thurstone Inventory, and the two scores on introversion and neurotic tendency from the writer's Personality Inventory. Average intercorrelations between the tests of introversion were no higher than the coefficients obtained between introversion and neurotic tendency. An analysis of the results by the tetrad-difference technique reveals a general factor in all the tests, two group factors, and specific factors. The group factors appear to be due to common content in two pairs of tests. The general factor seems best described as an E-factor, since the significant items in the various tests appear to refer primarily to emotional rather than to social aspects of behavior. The various tests give coefficients of correlation with the E-factor varying from .32 to .74. The best weighted pool and E give a coefficient of .90.—*E. B. Newman* (Columbia).

5990. **Bustamente, M. El método caracterológico de Jurowskaja.** (The characterological method of Yurovskaya.) *Arch. de neurobiol.*, 1933, **13**, 1151–1178.—The method consists of a questionnaire composed of 27 items such as: "What class of activities do you prefer most, theoretical investigations or practical works?" The subject may answer that he is not attracted by sciences which are not applied, or which have no immediate practical utilization; he may express no preference; or he may express a definite preference for only the theoretical and systematic endeavors. Answers of the first class indicate a cyclothymic temperament, those of the second type a normal or intermediate personality, while those of the third indicate the schizothymic character. Characterological profiles, obtained by this method, are useful in the determination and classification of the epileptoid, schizophrenic, and other abnormal mental types, as well as the normal.—*R. M. Bellows* (Ohio State).

5991. **Carmena, M. Ist die personliche Affektlage oder "Nervosität" eine ererbte Eigenschaft?** (Is the personal emotional disposition or "nervousness" an inherited characteristic?) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1934, **150**, 434–445.—The psychogalvanic technique is applied to 60 pairs of twins, most of whom range in age from 15 to 30 years. 36 pairs are monozygotic and the remainder dizygotic. The results show that while environmental factors influence the emotional disposition to a certain degree, approximately 75% of the total influence is exerted by heredity. Olfactory, optical, tactual and auditory stimuli are used, and a classification of subjects into groups according to degree of reaction shows an overwhelming degree of correspondence among the monozygotic pairs. Theoretical explanations of the psychogalvanic reflex are dealt with and the role of the thalamus and the endocrines discussed in relation to the emotional dispositions and the claimed hereditary significance of the "personal tempo." Further evidence of an hereditary nature is suggested by an examination of the handwriting of twins.—*P. S. de Q. Cabot* (Harvard).

5992. **Davis, A. J. Personality, parent intelligence and "scatter" on the Stanford-Binet.** *J. Juv. Res.*, 1934, **18**, 175–178.—The aim of the investigation was to discover whether there is any relationship between the disparity in mental ages of parents and their children's personality difficulties. 40 adopted and 44 "own" children 10–11 years old and 34 adopted and 29 "own" children 12–13 years old were the subjects of the study. No significant correlations were obtained between either of the two alleged measures of personality difficulty, score on the Woodworth-Mathews Personal Data Sheet and "scatter" in performance on the Stanford-Binet Test, and such variables as difference in mental age between the child's parents or difference in mental age between the child and his parents. "Scatter" on the Binet test and score on the Woodworth-Mathews Personal Data Sheet correlated negligibly also. The foster children did not "scatter" more on the Binet test than did the "own" children.—*H. L. Koch* (Chicago).

5993. **Giehm, G. Experimentelle-psychologische Ermittlung des aktuellen Kernproblems einer Persönlichkeit.** (An experimental psychological investigation of actual fundamental problems of personality.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1934, **150**, 100–109.—Sample protocols taken from a group of 375 indicate the validity of the method of analysis by means of an interpretation of responses to ink-blot tests. It is a valuable aid in clinical diagnosis and permits a differential diagnosis between a neurosis and either an evident or an obscure case of schizophrenia.—*P. S. de Q. Cabot* (Harvard).

5994. **Goldstein, H. A study of introversion and extroversion in a group of subnormal children.** *J. Soc. Psychol.*, 1934, **5**, 238–244.—A group of 51 subnormal boys and 25 subnormal girls was rated by five observers for the boys and three for the girls on introversion, using Marston's Personality Rating Scale. The split-half reliability of the average rating was .77 for the boys and .82 for the girls. The range of ratings was slightly less than for a normal group.

No reliable relation of introversion to age was found. —*E. B. Newman* (Columbia).

5995. **Hertz, M. R. The reliability of the Rorschach ink-blot test.** *J. Appl. Psychol.*, 1934, **18**, 461–477.—With a group of 100 high-school students, the reliability coefficient by the split-half method (corrected for attenuation) for the total number of responses is .89 and for various test factors from .67 to .97. Consideration is also given to test standardization, procedure of administration, scoring, and previous investigations.—*R. S. Schultz* (Psychological Corporation).

5996. **Hoffeditz, E. L. Family resemblances in personality traits.** *J. Soc. Psychol.*, 1934, **5**, 214–227. —The personality traits of 100 families, each consisting of at least father, mother, and two children of high school age or over, were determined by means of the Bernreuter Personality Inventory. The resulting scores for neurotic tendency, self-sufficiency and dominance show small (.008 to .284) but uniformly positive intercorrelations between fathers, mothers, sons and daughters (excepting siblings). Further analysis of the data confirms the view that only slight familial resemblances in these traits exist. There is no evidence that the resemblance between parents increases with duration of marriage. Consistent differences between fathers in various occupational groups were found. The highest occupational group is least neurotic, most self-sufficient and most dominant.—*E. B. Newman* (Harvard).

5997. **Kanner, L. Psychobiological work with children's personality difficulties.** *Amer. J. Orthopsychiat.*, 1934, **4**, 402–412.—The psychobiological mode of approach requires "well trained, well informed common sense and willingness to deal intelligently with the child who presents personality difficulties."—*H. Peak* (Randolph-Macon).

5998. **Katz, S. E., & Piotrowski, Z. A note on the age of marriage and size of family of two comparable vocational groups.** *J. Soc. Psychol.*, 1934, **5**, 257–260. —Certain psychoanalytical data suggest that fire has important symbolic significance for atypical children and psychopaths. Possible social effects of this fact were sought in data regarding the marital and familial status of New York policemen and firemen. The results lead to the view that the fireman's heterosexual adjustment is in no way different from that of a comparable group of policemen.—*E. B. Newman* (Columbia).

5999. **Klineberg, O., Asch, S. E., & Block, H. An experimental study of constitutional types.** *Genet. Psychol. Monog.*, 1934, **16**, 141–221.—The purpose of this investigation was an examination of the theory of types, as advocated by Kretschmer and others, by the use of quantitative and statistical methods. Tests including physical measurements, intelligence tests, general information, digit memory span, Lecky individuality record, *Spaltungsfähigkeit* test, cancellation, incidental memory, and Enke's long word test, were administered to 153 college men and 79 college women. Physical measurements (and other indices) permitted the grouping of these students into "leptosomes" and "pyknics." Efforts were made to control the heterogeneity of factors to an extent which the authors claim had not been true with the German investigations. Attempts are made to "seek for an explanation of the striking discrepancies between the results of Kretschmer and his school and the results of the present investigation." The authors conclude that "obviously it is impossible to overthrow a theory of the scope of Kretschmer's with a single investigation. . . The results of the present investigation with the use of methods more careful than those of Kretschmer's group have consistently failed to provide evidence for the presence of types which they claim to have found." A review of the literature is given and a bibliography of 47 titles is appended.—*F. M. Teagarden* (Pittsburgh).

6000. **Landis, C., & Katz, S. E. The validity of certain questions which purport to measure neurotic tendencies.** *J. Appl. Psychol.*, 1934, **18**, 343–356.—A study was made of the B1–N neurotic tendency scale (Bernreuter Personality Inventory) with the following groups of patients at the New York Psychiatric Institute: manic-depressive (manic), manic-depressive (depressed), dementia praecox, psychoneurosis, and "others" (general paralysis, psychopathic personality, etc.). The test does not clearly determine neurotic tendency in individual psychiatric patients. A comparison of case history items with answers on the neurotic tendency scale shows a 73% mean agreement. The greatest source of disagreement seems to be in contradiction between case history and patient's opinion on the questionnaire. A study of the most diagnostic items shows that "Yes" answers tend to have a high agreement with outside validating criteria. The method of internal consistency applied to this scale with normal and psychotic cases shows a similar distribution of scores for both groups. A high score on the neurotic scale is indicative of maladjustment, but a low score does not necessarily signify emotional stability.—*R. S. Schultz* (Psychological Corporation).

6001. **Lloret, B. L. Sobre las reacciones paranoides de los sordos.** (Paranoid reactions of the deaf.) *Arch. de neurobiol.*, 1933, **13**, 1117–1136.—The most important concepts of former writers upon this problem—those of Kraepelin and Mercklin, Schneider, and Kehrer, are reviewed. A case is selected "which shows with special clearness the relations between the psychotic personality, the sensory defect, and mental complexes." Deafness caused the subject of this case to be hypersensitive and hence socially maladapted. Emotional reactions characteristic of a manic-depressive syndrome may ensue without any direct etiological relation (other than psychological) with the sensory disability.—*R. M. Bellows* (Ohio State).

6002. **Melvin, A. G. Building personality.** New York: John Day, 1934. Pp. 303.—Because of the conflicting opinions of the various "psychologies" this author uses the thesis that psychology is the study of personality. Personality in this case is "the unified phenomenon which we attribute to a human being in

virtue of his existence." The various determining factors concerning personality in this sense are discussed. The methodologies of the behaviorist and Gestalt schools are converted into the author's system. Mental processes such as intelligence, cognition, habit formation, stimulation, and thinking are each given a chapter with the writer's own terminology and classification. The last part of the book deals with the synthesis of the parts of the personality, and also of the schools of psychology. An outline for personality study is included in the last chapter.—*L. S. Selling* (Eloise Hospital).

6003. **Page, J. Introversion-extroversion and the functional psychoses.** *J. Appl. Psychol.*, 1934, **18**, 478–488.—Comparisons between manic-depressive and schizophrenic patients and normal individuals on the Heidbreder and the Neymann-Kohlstedt tests of introversion-extroversion show that (1) the decreasing order of extroversion is: normal, manic-depressive patients, schizophrenic patients; (2) each psychotic group resembles the other more than either resembles the group of normal individuals; (3) no relationship exists between introversion-extroversion and prognosis in functional psychoses; (4) asthenic patients seem to be more introverted than pyknic patients.—*R. S. Schultz* (Psychological Corporation).

6004. **Resnikoff, P. A note on Washington.** *Int. J. Psychoanal.*, 1934, **15**, 301–302.—In 1795, Washington wrote that if the United States were unmolested twenty years longer it could bid defiance to any power. His own life history discloses that family deaths had forced a father role on him at the age of twenty. This suggests Washington's identification of the United States with himself. A letter of his in 1784 also suggests the same identification, since he wrote, "That the prospect before us is . . . fair, none can deny, but, like a young heir come a little prematurely to a large inheritance, we shall wanton and run riot . . . , and then like him. . . . " Also in 1798 he expressed a sense of guilt toward his father in writing of his feelings about accepting his official duties.—*M. H. Erickson* (Eloise Hospital).

6005. **Symonds, P. M. Psychological diagnosis in social adjustment.** New York: American Book, 1934. Pp. ix + 362. $3.00.—The bulk of the volume (pp. 171–346) is occupied by a classified descriptive list of tests, questionnaires, and rating scales in the field of personality. Chapters on diagnosis of criminal tendencies, mental disorder, vocational fitness, and citizenship-leadership are prefaced to this; these consist of reviews of the work in the respective fields, interspersed with the writer's views on the social significance of the phenomena considered.—*R. R. Willoughby* (Clark).

6006. **Taylor, H. C. Social agreement on personality traits as judged from speech.** *J. Soc. Psychol.*, 1934, **5**, 244–248.—Phonograph records of the reading of a newspaper editorial by 20 subjects were prepared. 20 auditors then rated each of the subjects on a questionnaire consisting of 136 items after listening to the playing of the record. Marked social agreement among the auditors was revealed, 72 of the 136 items giving scores on agreement more than three times their probable errors. Each of the subjects rated himself on the same questionnaire. The coefficient of correlation between scores for neurotic tendency and introversion, as well as tetrachoric *r*'s for individual items, indicate no tendency for the auditor's ratings to agree with the subject's self-rating. In fact, the items on which the auditors agreed best among themselves tended to be those on which they disagreed with the self-rating.—*E. B. Newman* (Columbia).

[See also abstracts 5817, 5819, 5915, 5941, 6010, 6081.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

6007. **Allport, F. H. The J-curve hypothesis of conforming behavior.** *J. Soc. Psychol.*, 1934, **5**, 141–183.—Sociological interest has centered largely in the norm or mode of any type of behavior. The individual deviations from such a norm constitute an important datum heretofore neglected. Such variations may often be plotted on a telic continuum, that is, on a continuum showing degrees of conformity with some prescribed rule or principle. Thirteen particular cases of conforming behavior are presented. The resulting distributions show a marked mode at the extreme position on the telic continuum which represents complete conformity. The curve drops rapidly from this mode and then falls more slowly as increasing degrees of non-conformity are reached. This is called a J-curve. When plotted on an objective, physical continuum the distributions are sharply unimodal and often markedly skewed. It is suggested that they represent double J-curves, with two of the former type placed back to back. Various factors contributing to the shape of such distributions are suggested: conformity-producing agencies, common biological tendencies, differences in personality traits, and chance. The manner in which such forces may combine to produce the empirically determined distributions is discussed.—*E. B. Newman* (Columbia).

6008. **Benedict, R. Patterns of culture.** New York: Houghton Mifflin, 1934. Pp. xiii + 291. $2.50.—The illustrative material around which the volume is arranged is grouped in three long chapters (167 pages) on Zuñi, Dobu, and the Kwakiutl respectively; these are drawn chiefly from the field researches of Bunzel, Fortune, and Boas. Three preceding and two following chapters are given to a detailed consideration of the nature of society, culture, and the relations of individual and group. The principle is enunciated that all standards of behavior are relative to the culture in which they occur, and that we have no absolute criterion by which to assign different values to different cultures; it is suggested that only by thinking and research oriented with these insights are we likely to arrive at any helpful understanding of our own complex culture. Introduction by Boas and bibliography.—*R. R. Willoughby* (Clark).

6009. **Bugg, E. G. An experimental study of factors influencing consonance judgments.** *Psychol.*

Monog., 1933, **45**, No. 2. Pp. 100.—An investigation was made of the effects upon consonance judgments of (1) the difficulty of the comparisons, (2) affective tone, and (3) the criterion or criteria used. In recent years these three sets of conditions have constituted formidable difficulties for almost every investigator dealing with the problem of consonance perception. In the present study, subjects tended to make lower scores upon the repetition of both consonance and preference series. Musically trained subjects were slightly more accurate in judging relative consonance than untrained subjects. Consonance discrimination was not an absolutely irregular, fortuitous phenomenon, as the usual type of reliability coefficients based on gross scores have seemed to indicate. The consistency of consonance discrimination tended to vary inversely with the difficulty of the comparisons. The study shows that comparative judgments of consonance are complexly conditioned phenomena, and it presents data which for the first time make certain types of analysis possible.—*H. Cason* (Wisconsin).

6010. **Canella, M. F. Aspetti biologici, psicologici e speculativi del problema della sessualità.** (Biological, psychological and speculative aspects of the problem of sexuality.) *Riv. di psicol.*, 1934, **30**, 78–115.—In the first part the author shows the importance of the study of human intersexuality in its psychological and characterological aspects, and discusses in detail the work of Marañon. In the second part he presents and criticizes modern theories of sex determination and sex characteristics.—*T. M. Abel* (Sarah Lawrence).

6011. **Carlson, H. B. Attitudes of undergraduate students.** *J. Soc. Psychol.*, 1934, **5**, 202–213.—The mean results obtained from 215 college seniors on four of the Thurstone attitude scales, those measuring attitudes toward prohibition, God, pacifism, communism, and birth control, are reported. The results are also classified with respect to sex, religious affiliation, and subject of study in the university. The largest differences are found between students of various religious affiliations. Coefficients of correlations between the attitudes and intelligence and between the various attitudes themselves were calculated. A multiple-factor analysis reveals three possible factors, which may be, in order of importance, intelligence, radical-conservative tendency, and possibly religiosity.—*E. B. Newman* (Columbia).

6012. **Chang, C. J. [Crowd mind and guidance.]** Shanghai: Commercial Press, 1934. Pp. xvi + 508. $1.80 mex.—This volume has grown from the author's syllabi used with the students at the Central Military Academy and Central Political Academy, Nanking. It aims to make statesmen as well as politicians realize the conditions of formation of the crowd mind, mightiness of the crowd force, increasing occurrence of crowd movements, and techniques of cultivating crowd feelings and of utilizing the crowd influence. Part I of the book deals with meaning, method and uses of studying crowd mind and guidance; formation and manifestation, changes and evolution, as well as the unitary character, of the crowd mind. Part II discusses the characteristics of crowd feelings, levels of the crowd intellect, and true nature of crowd volition. Part III deals with crowd and crowd leader, qualifications of the crowd guide, and general principles and tactics of crowd guidance.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6013. **Chiang, C. K. [An investigation of the reading interests and habits of Chinese adults.]** *Educ. & Masses* (Chinese), 1934, **5**, 1787–1830.—Two forms of a questionnaire, Form A being the more complex and Form B much simpler, were sent to more educated people (including college students, workers in the learning and cultural institutions, and adults having received new-type education) and to less educated people (including farmers, laborers, shop apprentices, soldiers and policemen, pupils of the popular schools, and adults having received old-type education), who represented a sample population of 20 provinces in China. Data on 201 copies of Form A and 376 copies of Form B were obtained. The results showed that about 84% of the reporters in Form A and about 70% in Form B read newspapers every day, while about 8% of reporters in Form B did not read or had no newspapers to read at all. College students generally spent ½ hour in reading newspapers, and quite a number of boys spent more than 1 hour. Both classes of people say that the chief motive of newspaper reading is to get information about current events or to increase knowledge. Persons of different professions read newspapers with different purposes. Most of the common people read newspapers from the beginning of the first page to the end of the last column, while most of the collegiates read what they are interested in. The former pay most attention to social news, current foreign affairs, political movements, and military news; while the latter pay most attention to current domestic and foreign events, editorials, educational and military news, and local events. Marked sex differences in both classes were noted. The collegiates generally formed a habit of reading newspapers at a definite time in the day, while the common people generally had no time habit. There were group differences and sex differences within the same group regarding the preferences for certain magazines to read. The collegiates were most interested in reading essays on special topics and novels, and least interested in "new" poems and translations; while the common people were most interested in reading general essays, literature, and novels. The former generally read magazine articles in the evenings, the latter at any leisure time. The results also showed that the majority of both classes of people spent more than 2 hours in book reading, and were most interested in reading novels. The collegiates read more books of technical or academic nature, while the common people read more books of a popular kind. The college boys read more books of a theoretical nature, especially books of social sciences; while the girls read more literary works, especially light literature. The collegiates reported that they read books because they had a need for them, while the common people reported that they read books in

order to increase knowledge. Most of the college students as well as of the common people read books in the evenings, otherwise at any leisure hours. The author expects that these data and results may be very helpful in the compilation of general readers as well as in the construction of school curricula and learning programs.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6014. **Chou, S. K., & Chên, H. P. [A survey of color preference of Chinese students.]** *Educ. & Voc.* (Chinese), 1934, Ser. No. 157, 437–447.—This investigation aims at two things: (1) In order to find out the color preferences of Chinese people and to compare them with those of other nationalities, a series of 9 color-words (viz., red, orange, yellow, green, blue, violet, white, gray, and black), forming 36 pairs, were employed. The paired-comparison method was used, the order of presentation of the pairs being at random. A total of 451 subjects (45 of them being women), including 357 middle-school students and 94 collegiates, whose ages ranged from 12 to 25 years, were surveyed. By applying Thurstone's formula, a color-preference scale for the Chinese students was constructed. The order of color preference obtained in this investigation runs as follows: white, blue, red, yellow, green, black, orange, violet, and gray. The scale values indicate both the relative standing of these 9 colors and the distances between them. When compared with other nationalities, Chinese students have opposite color preference, in that the white people, negroes, Indians, and Japanese, most dislike white and yellow colors. The authors then attempt to explain this racial difference in terms of differences in color association, habit, and language (both written and verbal). (2) In order to find out whether color preference varies with particular objects, 42 articles of 7 kinds were used as material. Of each kind, one object is general while the remaining 5 are special. These 42 objects were used in 42 questions, each preceded by the same 9 color-words. The same 451 subjects were required to cross out the most preferred color-word for each particular object. Taking 42 objects as a whole, the order of color preference obtained runs as follows: white, red, black, blue, yellow, gray, green, orange, and violet. The results indicate that color preference varies with particular objects. A general color preference occurr only when associated with particular objects. Colos preference for general objects correlates highly with that for particular things.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6015. **Cobb, W. M. The physical constitution of the American negro.** *J. Negro Educ.*, 1934, **3**, 340–388.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6016. **Crooks, K. B. M. On the incidence of color blindness among negroes.** *Science*, 1934, **80**, 269.—An examination of over 2,000 negroes at Hampton Institute, Virginia, with the Ishihara tests showed a color blindness incidence of 3.75% for males and 0.0% for females. These results agree closely with those of other investigators.—*P. Seckler* (Hartford, Conn.)

6017. **Dorsey, J. M. The treatment of a person who stutters.** *Ment. Hygiene*, 1934, **18**, 409–430.—Stuttering is a disorder of the person. The treatment involves the treatment not only of the organs, but of the individual. Therapy of the organism concerns the repair, maintenance, and mobilization of its parts. Laterality should be evaluated and guided. A physical health regimen should be outlined for the patient. Knowledge of oneself and a natural world outlook must be fostered. The patient should be made to act more and think less. He must know an adequate sampling of people, situations, places, and environments. It behooves one never to lose sight of individual diagnosis and treatment.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6018. **Dreps, H. F. The psychophysical capacities and abilities of college art students of high and low standing.** *Psychol. Monog.*, 1933, **45**, No. 1, 134–146.—This study affords a confirmation of the conclusion suggested by Manuel that there is no one psychological characteristic that is present in all persons gifted in graphic art, and that superior degrees of some skills or capacities may be possessed by individuals not in art. Of certain capacities, such as esthetic judgment or visual memory for form, one may expect normally to find college students electing art to have a superior degree. In the other functions there is no apparent advantage enjoyed by the art student so far as indicated by these tests. Prognosis of eventual success in graphic art must therefore be based upon other factors than skills and certain capacities, possibly upon temperamental and attitudinal factors, or probably upon the interaction of a high degree of esthetic judgment with certain combinations of capacities and abilities.—*H. Cason* (Wisconsin).

6019. **Dunlap, K. A possible dietary predisposition to stammering.** *Science*, 1934, **80**, 206.—From the early case histories of many stammerers, it appeared that an insufficiency of meat in the diet may have been an important predisposing factor. The author suggests that further investigation on this point, as well as the adoption of a proper meat diet for both stammering children and adults, may be advantageous.—*P. Seckler* (Radcliffe).

6020. **Goyanes, J. Introducción a la psicopatología de las vivencias místicas.** (Introduction to the psychopathology of mystical lives.) *Arch. de neurobiol.*, 1933, **13**, 647–660.—The mystical sentiments appear upon the occasion of the reformation of cultures, when social values are overthrown. They have a twofold basis, being closely connected with social institutions dealing with religion on the one hand, and those concerned with sex on the other. Their more pronounced manifestations, in the history of various peoples, have appeared during times of politico-social reorganization as it bears upon these two phases of cultural life.—*R. M. Bellows* (Ohio State).

6021. **Gummersbach, H. Affektbetonte Morde.** (Emotionally determined murder.) *Krim. Monatsh.*, 1934, **8**, 175–179.—In this continuation of his studies

Gummersbach discusses the psychic traits of the women murderers in his series and the relation of special forms of criminality to the upheavals and privations of the war and post-war periods. In women, the chief factors are psychic lability, the predominance of affect and fantasy in their social life, and the sexuality peculiar to the menopause. Female criminality is rooted in the erotic life. Murders motivated by passion and crimes growing out of economic misery have been characteristic of the past decade. They are due to an organic "nervous degeneration" manifesting itself as a breakdown of ethical inhibitions when the individual has reached his limit. The best known forms of this constitution are neurasthenia and hysteria. The criminality of the former shows itself in a passive lack of resistance; of the latter, in active delinquencies on an instinctive emotional basis.—*M. E. Morse* (Baltimore, Md.)

6022. **Hamlin, R. Predictability of institutional adjustment of reformatory inmates.** *J. Juv. Res.*, 1934, **18**, 179–184.—Using as subjects 500 consecutive cases admitted at Elmira Reformatory, the author by correlation procedures attempted to discover whether he could develop from any one or various combinations of 68 items an index which would predict the adjustment of reformatory inmates to the institution. His measure of institutional adjustment was based on items such as discipline marks, confinement in special training classes, number of assignments to the guard house, school demerits, school grades, etc. Adjustment-prediction scores based on the 15 most significant items correlated .55 with the adjustment scores, a correlation only .04 lower than that obtained when all 68 items were used to determine the adjustment-prediction score. Among the items having most prognostic value were the offender's original assignment in the Reformatory, the county from which he was sentenced, the psychiatrist's estimate of his prognosis, his age upon admission to the institution and his age when first arrested, the maximum sentence specified, his psychiatric diagnosis, and the number of his previous arrests. In general, items associated with future criminal behavior and those associated with unsatisfactory adjustment in the Reformatory are the same.—*H. L. Koch* (Chicago).

6023. **Helser, A. D. Education of primitive people.** New York: Revell, 1934. Pp. 316. $3.00.—A description of an elementary school or community curriculum based upon the life needs and the culture of the Bura animists in Africa. With the help of rich folk-lore and motivated by direct need, lessons are taught in home and social life, health, agriculture and crafts. The aims of the school include the "ideals, attitudes, dispositions and appreciations to be striven for"; they "cover every phase of life experience." The test of learning in the school is seen not in a grasp of the subject matter but in new ways of behaving.—*M. G. Willoughby* (Clark).

6024. **Henson, H. H. The analysis of leadership.** (Walker Trust Lectures on Leadership, No. 5.) New York: Oxford Press, 1934. Pp. 27. $1.00.—(Not seen).

6025. **Hill, G. E. Cheating among delinquent boys.** *J. Juv. Res.*, 1934, **18**, 169–174.—Extent of cheating was measured by a technique similar to that used by Hartshorne and May in their IER achievement tests. The subjects used in the investigation were 261 offenders (ages 16–26) in the Illinois State Reformatory at Pontiac and several groups of junior high school boys, some of whom were exceptionally well adjusted while others, according to teacher's reports, presented behavior problems. Between the junior high school problem and well-adjusted boys there was no difference in tendency to cheat. The delinquent group, however, showed themselves more dishonest than either of the high school groups, though two-thirds of the members of the former did not cheat on the tests. Negro boys tended to cheat slightly more than whites; the offenders committed for sex offenses cheated more than those committed for offenses involving stealing. Correlation coefficients of −.286 and −.507, respectively, were obtained between amount of cheating and scores on two arithmetic tests.—*H. L. Koch* (Chicago).

6026. **Hirsch, E. W. The power to love.** New York: Knopf, 1934. Pp. 392. $4.00.—The study of the functional derangements of the sexual organs in apparently healthy people has been largely omitted in medical literature, particularly the question of psychic impotence. "Man has the potentialities within his body to develop sexual vigor, but if the activities of these organs are thwarted by baneful thought-processes, he will suffer from a diminution of a prime masculine quality." The book is written primarily for the layman. Among the subjects dealt with are the following: the sexual regulatory mechanism, causes of sexual debility, psychical impotency, the relation of frigidity to impotency, sexual fears, and the art of sexual technique.—*A. B. Hunter* (Clark).

6027. **Hogbin, H. I. Law and order in Polynesia.** New York: Harcourt, Brace, 1934. Pp. 296. $3.50. —Part II of the book (five chapters) is a report of that part of the author's field work in Ontong Java (an atoll north of the Solomon Islands) which deals with the processes of social control in a primitive tribe; prefaced to this is an orienting chapter stating the problem of social obligation and criticizing the various theories on it that have been proposed. Part III is a presentation and consideration in this setting of the parallel phenomena reported by other observers in the allied cultures of Tonga and Hawaii. Part IV is a brief concluding chapter. The book is opened with an introduction of 55 pages by Malinowski, who sets forth the aims of modern anthropological research in general and the status and setting of the problem of law in particular. Bibliography.—*R. R. Willoughby* (Clark).

6028. **Jacobson, W. E. An experimental investigation of the basic aesthetic factors in costume design.** *Psychol. Monog.*, 1933, **45**, No. 1, 147–188.—A search was made for an explanation of beauty in costume design by means of test procedures. Of a number of factors serving as criteria of beauty, those of primary significance are the general qualities apt to be found in all good art, namely, proportion, balance, rhythm,

and emphasis. The esthetic impulse is general in that it finds definite expression in the language of both artist and layman. When beauty, which ordinarily is complex, is reduced to the fewest possible variables, the esthetic impulse in both experts and non-experts is stimulated in a consistent manner. The esthetic impulse finds satisfaction in certain space relationships when they tend to create a sense of balance or lessen tension; in balance in that it creates an experience of stability and equilibrium; in rhythm when it directs attention or favors perception by unifying; in emphasis when it lessens the strain of attention by attracting, fixing, directing, or holding attention. The serial order of merit method in determining factors and the method of paired comparisons in refining test material were found to be satisfactory procedures in the measurement of beauty in costume design through the various phases outlined. —*H. Cason* (Wisconsin).

6029. **Kirkpatrick, M. E. Delinquency in Cleveland and Cuyahoga County during the depression period.** *Amer. J. Orthopsychiat.*, 1934, **4,** 382–386.—Since 1918 there has been a steady decline in the number of cases coming to the juvenile court in Cleveland, and this tendency has continued through the depression. This is attributed to the activity of employment relief agencies and to an increase in the number of children attending high schools.—*H. Peak* (Randolph-Macon).

6030. **Ley, A. Les méthodes de pathographie historique et biographique.** (The methods of historical and biographical pathography.) *J. belge de neur. et de psychiat.*, 1934, **34,** 438–444.—The author stresses the importance of studying famous men of the past from the psycho-biological and pathological points of view, as such knowledge contributes much to the understanding of certain mental contagions, social trends, religious movements, and other cultural manifestations of their times. Attention is called to the general personal bias which tends to alter and misinterpret historical data, and the principles of a more exact pathographic methodology are outlined. Adolf Meyer's scheme of personality study—with its synthesis of bio-psychological, pathological and social factors—is recommended as an excellent guide which might be followed also in historical patho-biographic studies.—*H. Syz* (Cornell).

6031. **Likert, R., Roslow, S., & Murphy, G. A simple and reliable method of scoring the Thurstone attitude scales.** *J. Soc. Psychol.*, 1934, **5,** 228–238.—The method proposed consists in arbitrarily classifying the responses as favorable or unfavorable and assigning the categories of response *strongly favorable, favorable, indifferent, unfavorable,* and *strongly unfavorable* corresponding values on a five-point scale. The total of the values given each item is the measure used. The results obtained on ten of the scales showed consistently higher reliability for the simplified scoring procedure than for the accepted procedure. Coefficients of correlation between the two procedures ranged from .75 to .95, indicating equal validity for the new method.—*E. B. Newman* (Columbia).

6032. **Lundberg, G. A. [Ed.] Current research projects. Report of research census of 1934.** *Amer. J. Sociol.*, 1934, **40,** 221–239.—*R. Smith* (Clark).

6033. **Luquet, G.-H. Les Vénus paléolithiques.** (Paleolithic Venuses.) *J. de psychol.*, 1934, **31,** 429–460.—A discussion on the historical validity of the sculptured representations of the human form which appeared with the coming of the Upper Paleolithic people, on their relative merits as works of artistic expression, and on their anthropological value as being representative or not of the Aurignacians themselves. The most reasonable and least speculative conclusion is that these works of art were fashioned by the sculptor with no thought of their derived religious and social implications.—*P. S. de Q. Cabot* (Harvard).

6034. **Mandowsky, A. Beiträge zur vergleichend-psychologischen Untersuchung über die Handschrift.** (Contributions for a comparative psychological investigation on handwriting.) *Arch. f. d. ges. Psychol.*, 1934, **91,** 49–96.—This study in graphology differs from others in the fact that it deals with writing as a whole picture rather than viewing it analytically, making its inferences from the constellation of characteristics. The handwriting of thirteen mentally disturbed persons and one normal person were used Twelve members of the Hamburg Psychological Seminar helped to examine the specimens. The article cites the full descriptions given, adds the life history of each case, and makes comparisons with the judgments made in each case by the examiners. The author reaches the conclusion that without further knowledge of a case, diagnosis of the mental state cannot be made from handwriting alone, but when the fact of mental disturbance is known, the type may be inferred reasonably well. Specimens of handwriting accompany the article; these are from manic-depressive, epileptic and schizophrenic patients. —*A. B. Herrig* (Michigan Central State Teachers College).

6035. **McDougall, W. Religion and the sciences of life, with other essays on allied topics.** London: Methuen, 1934. Pp. 263 + xiii.—This volume contains 15 essays on "religion, evolution, psychic research and eugenic reform. In the author's view these topics are so closely related as to be but four aspects of one great topic—man's place in the universe." The great obstacle to the advance of science and the progress of civilization is "materialism." This is embodied in the Apollonian theory of man, and its features are mechanism, intellectualism, the Darwinian as opposed to the Lamarckian view, euthenics as opposed to eugenics. What is needed is a repudiation of materialism and a recognition of purpose in life and the cosmic order. This is even now being effected by such movements as purposive and functional psychology, *verstehende* and *geisteswissenschaftliche* psychology, personalism, psychical research, educational and social experimentation. All such movements represent the Dionysian theory of man. The righting of the sciences of life and the harmonizing of them with religion will promote an improved world

civilization. Such sciences include, besides psychology and biology, anthropology, eugenics, and history. A proper development of them, challenging the false supremacy of physical science, makes for scientific, cultural, ethical, and political advance.—*H. D. Spoerl* (St. Johnsbury, Vt.)

6036. **McElwee, E. W. Recognition of melodies and tonal memory.** *J. Appl. Psychol.*, 1934, **18**, 489–490.—A correlation of .62 ± .03 was found between recognition of 20 melodies and tonal memory on the Seashore test for a group of 150 7th and 8th grade junior high school students.—*R. S. Schultz* (Psychological Corporation).

6037. **Mette, A. Die tiefenpsychologischen Grundlagen des Tragischen, Apollinischen und Dionysischen.** (The depth-psychology bases of Apollonian and Dionysian tragedy.) Berlin-Steglitz: Dion-Verl., 1934. Pp. 71.—*R. R. Willoughby* (Clark).

6038. **Middleton, W. C. Denunciation and religious certainty.** *J. Soc. Psychol.*, 1934, **5**, 254–257.—The writer suggests that religious leaders and cult organizers are typically excessively bombastic and denunciatory. Such traits are to be coupled with a high degree of self-confidence.—*E. B. Newman* (Columbia).

6039. **Mira, E. La nueva concepción experimental de la conducta moral.** (The new experimental conception of moral conduct.) *Arch. de neurobiol.*, 1933, **13**, 1059–1080.—Different classes of criminals vary in their judgments concerning the severity of different classes of moral transgression. Robbers excessively penalize crimes of murder; sexual perverts would place excessive punishments upon other types of delinquency; while other criminals judge sexual delinquency excessively rigorously. But a correlation of .33 was found in tests, on 56 students, on moral information and ethical discrimination; .43 between test results on sincerity and spirit of sacrifice; .09 between altruism and ethical discrimination; and .78 between "blood transfusion" test and the "poison candy" test. "These data demonstrate that the correlation between the tests of *theoretical* conduct is small; that between *theoretical* and *real* conduct is nothing; and that between the tests of actual conduct in the face of situations which require the possession of the same moral characteristic but expressed in two different forms (action in one case and inhibition in the other) is highly satisfactory."—*R. M. Bellows* (Ohio State).

6040. **Moerchen, F. Verhütung des Rückfalls in exhibitionistische Handlungen.** (Prevention of relapse in exhibitionism.) *Krim. Monatsh.*, 1934, **8**, 183–185.—The importance of exhibitionism is overrated. Unsophisticated children and young girls consider it merely disagreeable rather than immoral. The real injury to them lies in the questioning and court procedure. Nevertheless prevention of the activity is important, and for this purpose Moerchen has prescribed successfully underwear designed in such a way as to make exposure tedious. The wearing of such clothing should be made obligatory for all known exhibitionists. This mild and simple measure is much more to the point than the sterilization, castration or institutionalization now demanded for sexual offenders.—*M. E. Morse* (Baltimore, Md.)

6041. **Molitch, M., & Eccles, A. K. The relation between mental level and basal metabolism in juvenile delinquents.** *J. Juv. Res.*, 1934, **18**, 135–139.—Basal metabolic rate as expressed in calories per square meter per hour was correlated, in the case of a group of 200 juvenile delinquents (ages 9–18), with mental level estimated from one or several of a group of mental tests. There was no correlation between the two variables.—*H. L. Koch* (Chicago).

6042. **Morales, E. G. Valoración de la peligrosidad colectiva.** (The evaluation of group delinquency.) *Arch. de neurobiol.*, 1933, **13**, 837–848.—Profiles consist of numerical evaluation of delinquent propensities of individuals and communities. Statistics precede and are at the basis of the technique of profile construction, but the individual's socio-economic and academic needs must also be studied and fixed in the collective scheme. Statistics enables the computation of numerical evaluation of potential group dangers from delinquency. The profile technique permits orientation concerning the etiology of delinquency.—*R. M. Bellows* (Ohio State).

6043. **Parry, A. Tattoo; secrets of a strange art as practiced among the natives of the United States.** New York: Scribners, 1933. Pp. xii + 171.—The author discusses both the history and art of tattooing and the underlying psychological connotations. The relationship between first tattooing and first sexual experience, the sexual symbolism involved in the act of tattooing, the exhibitionistic elements involved, the masochistic factors, the homosexual aspects, and the relationship between tattooing and clothing are all elaborated and illustrated with examples.—*M. H. Erickson* (Eloise Hospital and Infirmary).

6044. **Parry, A. Tattooing among prostitutes and perverts.** *Psychoanal. Quar.*, 1934, **3**, 476–482.—As an addendum to the review of his book on tattooing in the *Psychoanalytic Quarterly*, the author contributes a special article concerning the more overt practices in tattooing. He gives examples of inscriptions and decorations favored by prostitutes and perverts, and gives examples of the various ways in which the act of tattooing may be substituted for coitus or used as a means of masochistic gratification or seduction. The peculiar attitudes showed toward tattooing by the tattooed are discussed, with examples which served to show the unconscious motivations instrumental in the disfigurement.—*M. H. Erickson* (Eloise Hospital and Infirmary).

6045. **Pérès, J. Sur le rôle du critérium historique en matière artistique et sur l'anachronisme.** (On the part played by the historical criterion in artistic themes and that played by anachronisms.) *J. de psychol.*, 1934, **31**, 419–428.—Anachronisms are natural in art. It is difficult to eliminate them, since this would destroy the inherent values of artistic productions. Many examples of anachronisms are cited: the paintings of Christ and of other religious subjects, the works of Shakespeare, contemporary

social conditions and mannerisms, and the classic tragedies in French literature of the 17th century. History itself is an art, and however well reconstructed in detail, is full of anachronisms. It is difficult to find any single criterion of historical truth, for the past and the present are closely interwoven when it is a matter of literary expression.—*P. S. de Q. Cabot* (Harvard).

6046. **Pulver, M. Sociale gevolgen der aandriften. Drie analysen ter illustratie van de wijze, waarop de aandriften in het handschrift tot uiting komen. I.** (Social consequences of drives. Three analyses of the manner in which drives are expressed in handwriting. I.) *Tijdsch. v. wetensch. graphol.*, 1934, **6**, 66–73.—A critical analysis of the handwriting of Peter Kürten shows that he was aware of the criminal nature of his activities (even distribution of letters, well-controlled movements) but that his drive was so intense that it was beyond control (hesitation, resulting in blots). It shows that he was conscious of his physiological and social inferiorities (trembling, atactic symptoms), that his drive narrowed his personality (crowded letters), while the bestiality of his perversion shows in his jagged loops. It is the writing of an inferior individual, suffering from a compulsion neurosis and with borderline responsibility for his actions.—*H. Beaumont* (Kentucky).

6047. **Rabaud, E. Phènomene social et manifestations collectives.** (Social phenomena and collective manifestations.) *J. de psychol.*, 1934, **31**, 337–395.—Contemporary sociological theory emphasizes group activity as a fundamental characteristic of human society. Durkheim in particular rejects all comparisons between the behavior of animals and that of human beings; in terms of chemical analogy he regards social manifestations as epiphenomenal. But collective activity among wasps, bees and ants cannot be detected; only distorted and anthropomorphic interpretations maintain that it is truly social, overlooking the fact that the apparent behavior changes are due to stimulating conditions caused by the immediate contacts characteristic of crowds. Among neither men nor animals is division of labor promoted by so-called group life. Polymorphism exists among ants, especially *Messor* and *Camponotus*, termites, and among animals leading a solitary life, such as *Bledius taurus*, a staphylinid Coleopteroid. Morphological differences are the results of many far removed influences operating, in some cases before birth, upon animals who live both in and apart from groups. Language, in some form necessary for collective group activity, seems to be lacking in all animals except man. Lubbock's experimental findings on this point are accepted to the exclusion of the views of Wheeler and Von Frisch. The group is not an entity with peculiar characteristics transcending the individual. A metaphysical group "soul" or "mind" does not exist: only individualism characterizes the entire animal kingdom.—*P. S. de Q. Cabot* (Harvard).

6048. **Raubicheek, L. Improving your speech; a pupil's practice book in speech training with phonetic aids.** New York: Noble & Noble, 1934. Pp. 172. $1.00.—*R. R. Willoughby* (Clark).

6049. **Reynolds, B. C. Between client and community: a study of responsibility in social case work.** *Smith Coll. Stud. Soc. Work*, 1934, **5**, No. 1. Pp. 128.—A discussion of the problems and philosophy of social case work under the headings: (1) client or community, (2) for its own sake, (3) authority and social case work, (4) self-determination for the client, (5) ten interviews and the thinking that grew up around them, (6) freed from authority, and (7) growing up.—*R. H. Brown* (Clark).

6050. **Riera, J. G. Muerte y sexualita.** (Death and sexuality.) *Arch. de neurobiol.*, 1933, **13**, 723–736.—Our conduct and attitude toward death is determined by the emotion of fear, while that toward sex is conditioned by mores and social convenience. In the case of death the severe biological consequences are cognized, whereas in sex only the social custom and not the biological import is attended to. The relationships of attitudes concerning death and sexuality as the two bear upon works of art, sadistic behavior, and suicide are discussed from the Freudian viewpoint.—*R. M. Bellows* (Ohio State).

6051. **Robertson, E. The emotional element in listening to music.** *Australas. J. Phil. & Psychol.*, 1934, **12**, 199–212.—Music cannot properly be regarded as expressive of emotion. In the case of the composer, knowledge of methods of writing music shows that he does not compose, as is popularly believed, in order to express certain emotions often ascribed to his productions. In the case of the listener, emotional enjoyment (or associative listening) may be distinguished from true esthetic enjoyment (musical listening), the latter being intellectual rather than emotional. The emotional quality of music is often recognized to be "abstract." The emotional element in musical experience is activated by the dynamic quality of music, which gives direction to emotions that are present or exist as traces (by Ribot's theory of affective memory). Interest in the emotion (which is associative and incidental) detracts from esthetic absorption in and proper understanding of the music itself. The term emotion is given a loose and inclusive signification.—*H. D. Spoerl* (St. Johnsbury, Vt.).

6052. **Schrijver, J. De tentoonstelling van "verluchte manuscripten" en de graphologie.** (The exhibit of "illustrated manuscripts" and graphology.) *Tijdsch. v. wetensch. graphol.*, 1934, **6**, 74–85.—The exhibit of samples of handwriting of various poets and authors is of little value to graphology, because this science requires ordinary handwriting, while the exhibitors clearly attempted to write their best hand. Toward the end of the page there is sometimes a return to spontaneity. Most samples showed pathological traits and autistic thinking; some show delicate artistic temperament; a few writers attempted to hide their instability behind a carefully studied artificial handwriting. Words and lines are pedantically even and straight; only one in the collection has a form of its own. A dozen samples are reproduced.—*H. Beaumont* (Kentucky).

6053. **Schrijver, J. Nog eens: het handschrift van voor zedenmisdrijven gestraften. Een critische**

beschouwing. (Again: the handwriting of sexual offenders. A critical study.) *Tijdsch. v. wetensch. graphol.*, 1934, **6**, 86–96.—A critical study of Roda Wieser's analysis of the handwriting of sexual offenders. Though they have all been in conflict with the law, there is no justification for treating their offenses as similar. A steady hand, often indicative of will power, sometimes shows indications of irresistible drives, and inversely, irregular writing does not exclude the existence of will power. It merely points to strong emotional development, while a steady hand reveals the lack of it.—*H. Beaumont* (Kentucky).

6054. **Seashore, C. E., & Seashore, H. The place of phonophotography in the study of primitive music.** *Science*, 1934, **79**, 485–487.—The technique of graphic recording of primitive music from which pitch and intensity, as well as tempo, time variations, measure formation, rhythm, and phrasing can be determined is described. The advantages of this form of transcription are discussed. A typical pattern score is presented.—*P. Seckler* (Hartford, Conn.)

6055. **Smith, T. V. Beyond conscience.** New York: Whittlesey House, 1934. Pp. 373. $3.00.—(Not seen).

6056. **Taggart, A. D. Some basic concepts regarding field work training for psychiatric social work.** *Amer. J. Orthopsychiat.*, 1934, **4**, 365–373.—The case work supervisor in the capacity of teacher attempts to share her experience with the student while leaving her free to think out her problems and initiate action. —*H. Peak* (Randolph-Macon).

6057. **Ter Braake, A. L. Ontleding van een ingezonden handschrift.** (Analysis of a sample of handwriting.) *Tijdsch. v. wetensch. graphol.*, 1934, **6**, 33–45.—The graphological analysis of a letter sent in to the editor with special emphasis on the motives determining the writing movement in the realm of the lower loops.—*C. Koster* (Huntington).

6058. **Vogelsang, H. Aus der Ideenwelt jugendlicher Rechtsbrecher.** (From the young law-breaker's world of ideas.) *Zsch. f. Jugendk.*, 1934, **4**, 120–125.—In order to gain an insight into the mental life of youthful prisoners by indirect means drawing and modeling materials were supplied to the young men in prison. Fresh paper could be obtained only by turning in the drawings. On analysis these were found to be 43% erotic, 9.6% adventure, 8.0% caricatures, 6.6% autobiographic-fantasy, and 32.6% figurative representations. Of the erotic 46.6% were "masked," such as drawings of immoral women, 27% onanistic, and 26.4% "open." The figurative group, comprising the character heads, landscapes, animals and other types, came from those who had been in prison only a short time. The longer the incarceration the less reproductive and the more subjective and original the drawings became. Fewer examples of modeling than of drawing were obtained.—*M. Lee* (Chicago).

6059. **Woolston, H. Discrimination: a study of social determinants.** *J. Soc. Psychol.*, 1934, **5**, 248–254.—Student willingness to admit atypical personalities into various associations was shown to be greatest when factors of age, occupation, race and marital status were concerned and least when political, religious and fraternal associations are involved. Certain statistical considerations are discussed.—*E. B. Newman* (Columbia).

[See also abstracts 5799, 5817, 5820, 5904, 5905, 5910, 5945, 5953, 5956, 5957, 5962, 5976, 5978, 5998, 6006, 6065, 6081, 6093, 6117, 6122, 6138, 6141, 6144, 6145, 6147, 6149, 6150, 6151, 6152, 6153, 6158, 6160, 6165, 6167, 6173, 6174, 6175, 6178, 6181, 6182, 6183.]

INDUSTRIAL AND PERSONNEL PROBLEMS

6060. **Ash, W. S. Mental processes and medical science.** *Nat. Safety News*, 1932, Dec., 13–14.—A psychological contribution is found in the manner of fitting the mind to the work the man may be doing. Variation in accident experience is the result of variation in mental processes actuating behavior. The medical man's function in a plant is to use the findings of psychologists in changing attitudes of men brought for treatment due to accidents, and to give health examinations before employment.—*S. E. Baruch* (Psychological Corporation).

6061. **Auel, C. B. What do we mean by "accident prone?"** *Nat. Safety News*, 1932, Sept., 19–20.—"Accident prone" is variously defined. Examples of individual differences resulting in accidents are given. Employers are responsible for preventive measures, which should include proper selection of men for jobs as well as installation of safety devices. As proof of this premise the experiences of several plants in treating "accident prone" men are given. Drivers are more likely to have accidents than men in factories because of the greater variety and number of unexpected hazards. One plant is cited in which accidents were reduced from 187 to 9 per month. With better selection of men, periodic checks, and more intensive prevention work there would be no "accident prone" employees.—*S. E. Baruch* (Psychological Corporation).

6062. **Baker, J. S. What can we do for high accident drivers?** *Nat. Safety News*, 1932, June, 19–20. —Investigations of men with unsatisfactory accident experience show that physiological deficiencies, lack of knowledge or skill, and wrong attitude are often present. Four typical studies are mentioned in which individual analyses and treatment programs for this group resulted in correcting the underlying condition in about 85% of the cases. One study wherein only disciplinary measures were used showed improvement in only about 20% of the cases. The need for more accurate measures of accident experience and more continuous attention to the causes underlying accidents is stressed.—*S. E. Baruch* (Psychological Corporation).

6063. **Bathurst, J. E. Getting at the hidden causes.** *Nat. Safety News*, 1932, May, 31–32.—About 85% of accidents are due to personal factors. Feeling of responsibility will prevent many accidents, but persons differ fundamentally in make-up and often cannot change behavior by training or experience. Muscular

coordination, reaction time, fatigue, "losing one's head," lack of intelligence, emotional disturbance, neuroses, wrong placement, are some of the underlying causes of accidents. Where available, tests should be used to measure these traits. Some may be helped by corrective programs.—*S. E. Baruch* (Psychological Corporation).

6064. **Desmond, R. A place in society.** *Human Factor*, 1934, **8**, 376–379.—The homilies of self-made men under-estimate the part played by sheer luck in the careers of those who rise from the ranks. Ability and determination may avail nothing in the service of an inefficient or unscrupulous employer. For the young man entering industry, the choice of employer is as important as the choice of work.—*M. Horsey* (National Institute of Industrial Psychology).

6065. **Hartmann, G. W. The prestige of occupations. A comparison of educational occupations and others.** *Person. J.*, 1934, **13**, 144–152.—450 persons, engaged in diverse careers and living in various localities, arranged 25 representative occupations in the order of their respect and admiration for them. The relative positions derived from large and small communities, agricultural and industrial regions, were strikingly consistent. The professions stood at the top of the prestige hierarchy and the "labor" groups near the bottom. Most occupations gave only a slightly higher rank to themselves than that granted by others. In all groups the physician uniformly stood first. A definite order of merit within the teaching profession was also revealed, thus: college professor, school superintendent, principal, high-school teacher, and elementary-school teacher.—(Courtesy *Person. J.*)

6066. **Hersey, R. B. The mental health of workers.** *Ment. Hygiene*, 1934, **18**, 462–468.—A summary is made of the results of an experiment on German and America workers. The American group was studied during the period 1927–1930. Not more than half the time are all the workers in a state of mind that would enable them to face life's crises. It was found that happiness increases output. A table showing percentage of importance of plant, physical state, and home for the group of workers indicates that they are of almost equal importance. The author lists six qualities of personality as being essential in maintaining mental health. In achieving mental health, the following conditions are of importance: having a goal; making progress toward the goal; and feeling that one is accomplishing something worth while. The employer's obligations toward his employes are outlined, and the need for economic, medical and psychiatric service is stressed.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6067. **Kellogg, C. E., & Morton, N. W. Abilities and unemployment.** *Person. J.*, 1934, **13**, 169–175.—Psychological tests and questionnaires were given to 300 employed and 2000 unemployed men. Preliminary analysis of some of the data shows that employed office clerks were older than unemployed, had completed more grades of schooling, and had better clerical test scores. When the occupations of the unemployed men were grouped into seven classes, significant differences in test scores were found for these classes. Intelligence, clerical, and educational achievement test scores, and grades of schooling completed, varied with the level of occupation. The technical and mechanical workers scored highest on the mechanical tests. Sales workers were found to be definitely more dominant and more stable emotionally than any other occupational group.—(Courtesy *Person. J.*)

6068. **Lauer, A. R. Manual of tests for automotive operators.** Ames, Iowa: Iowa State College, 1934. Pp. 36.—This pamphlet contains a summary of results obtained to date by the researches made by the Committee on "Psychology of the Highway" of the National Research Council. Contents are as follows: requirement of tests; recommended procedures classified according to facilities available; psychological factors to be observed in giving tests; other factors which may influence test results; some precautions concerning recommendations based on the tests; a typical procedure; forms for entering the results of an examination; needed research in the future; references; appendix. Standards and norms.—*J. C. Spence* (Worcester, Mass.)

6069. **Lauer, A. R. The role of psychology in accident prevention.** *Nat. Safety News*, 1932, March, 19–20.—The proper place of psychology in aiding in the development of a preventive program of safety is brought out by defining the function of psychology, contrasting it with "charlatanry" on one side and psychiatry on the other. Some specific examples of types of studies that can be made by psychologists are given. The article is an introduction to a series giving the results of three years of research at Ohio State University and Iowa State College.—*S. E. Baruch* (Psychological Corporation).

6070. **Lauer, A. R. How can we measure driving ability?** *Nat. Safety News*, 1932, July, 25–26; 64–65.—Comparison of six methods of testing drivers shows that testing by complex laboratory apparatus simulating automobile driving is better than paper and pencil tests, practical driving tests either on a standard driving field or in traffic, provisional employment, or laboratory tests of single factors. Practical driving tests on a standard field are fairly new and look promising for the future. It is possible to isolate some factors of accident-proneness. Such information on individual cases, when used by an expert in clinical analysis, is extremely valuable.—*S. E. Baruch* (Psychological Corporation).

6071. **Lauer, A. R. What types of persons have accidents?** *Nat. Safety News*, 1932, August, 16–17.—Studies of accidents show that a majority of accidents are often traceable to a minority of drivers. Some types who have frequent accidents are described: the "ne'er-do-well," the paranoic and hot-headed, the timid soul, the drug addict and alcoholic, the insane, the older man and the very young man, the person under unusual physical or mental strain, persons with intelligence quotients under 75 or 80 or between 110 and 125, "reckless" persons. Good medical examination and careful mental examination

using proper apparatus would reduce accidents 60 to 80%.—*S. E. Baruch* (Psychological Corporation).

6072. **Lauer, A. R. Disabilities that cause accidents.** *Nat. Safety News*, 1932, Oct., 48–49.—Disability is defined as any weakness in an individual which incapacitates him for proper control of a motor vehicle. The author discusses at some length types of disabilities: inherited, including sensory defects, low intelligence, etc.; those due to training, bad motor habits, bad attitude, lack of knowledge; mutilation, injuries, pathological conditions, worry, etc. He considers also a few points in more detail, e.g., importance of consistency of reaction time, maintenance of morale. He also suggests the inclusion of all possibilities before making a diagnosis in individual cases. —*S. E. Baruch* (Psychological Corporation).

6073. **Lauer, A. R. The eyes behind the windshield.** *Nat. Safety News*, 1932, Nov., 34–35.—Good vision is the most important single factor in driving. The author defines differences between opticians, optometrists, and oculists. He gives the main eye difficulties found: inequality of acuity between two eyes, narrowed field of vision, astigmatism, phorias (eye-muscle imbalance), scotomata, retinal abnormalities. Traffic bureaus can make quick examinations by the use of proper equipment. A study is now in progress to set up minimum standards of vision for driving safety and to develop measuring equipment for the use of traffic and safety men.—*S. E. Baruch* (Psychological Corporation).

6074. **Lauer, A. R. Recklessness in driving.** *Nat. Safety News*, 1932, December, 17–19.—The author gives examples of two test studies measuring recklessness; the results are negligible. The most common forms are: wide right turn, removing hands from wheel, etc. Particularly careful are: married men, voters, men with good credit. Six main types of "reckless" drivers are: slow, ambling, over-cautious drivers; drivers who do not know or follow regular signals; poor manipulators; those who know but "break" traffic regulations; gambling drivers; absent-minded drivers. Discipline will help those who are still "bad boys." A study of causes will help the rest. —*S. E. Baruch* (Psychological Corporation).

6075. **Lauer, A. R., & Kotvis, H. L. Automotive manipulation in relation to vision.** *J. Appl. Psychol.*, 1934, **18,** 422–431.—Results are reported on 188 subjects at the Iowa state fair in a laboratory automobile-driving situation in regard to such factors as age, experience in driving, weight, height, average driving speed, number of cars driven, extent of visual field, visual acuity measured by stereoscope, driving score (in contacts, errors, and time), acuity by optometric methods, glare index and difference, perceptual span for numbers, astigmatic index, strength measured by hand dynamometer, and speed of movement (tapping). Correlations among various factors are low and about 50% are non-linear relationships. "The general conclusion is that perceptual span is a complex factor and is only slightly related to such specific functions as driving an automobile. It is more closely related to age and habituated response patterns than to basic capacities such as acuity of vision and size of visual field." A negative relationship was obtained between driving errors and observational ability. Driving speed correlates .2076 with observational ability. "There is some evidence that accident drivers on the average have higher motility rate, are stronger, live in larger towns and tend to compensate."—*R. S. Schultz* (Psychological Corporation).

6076. **Lester, A. M. The elimination of glitter in an industrial lighting system.** *Human Factor*, 1934, **8,** 309–311.—Difficulties caused by glitter in the inspection of small brass components were solved by the provision of indirect lighting with specially designed shades.—*M. Horsey* (National Institute of Industrial Psychology).

6077. **Miles, G. H. Psychological aids to increased production.** *Human Factor*, 1934, **8,** 343–355.—A popular description of the psychologist's main contributions to industrial productivity.—*M. Horsey* (National Institute of Industrial Psychology).

6078. **Mitchell, J. H. Dress reform in the factory.** *Human Factor*, 1934, **8,** 367–375.—The ideal working costume is comfortable, hygienic and esthetically pleasing. This ideal—at present far from being realized—would probably be best attained through the wider adoption of factory uniforms.—*M. Horsey* (National Institute of Industrial Psychology).

6079. **Nathanson, Y., & Twitmyer, E. M. The value of specific purpose in advertising.** *J. Appl. Psychol.*, 1934, **18,** 319–342.—A questionnaire consisting of 10 problems about 3 newspaper advertisements on fur coats was submitted to men and women (age range from 18 to over 40) attending college classes at the University of Pennsylvania. The "merchandising," "institutional," and "price" appeals are shown to have specific advantages in advertisements. Suggestions are made for proper construction of questionnaires and psychological analysis of advertising.—*R. S. Schultz* (Psychological Corporation).

6080. **Pierce, W. O'D. The selection of colour workers.** New York: Pitman, 1934. Pp. 134 + xi. $2.00.—The chapter headings are: (1) the industrial importance of color-matching; (2) a general account of the research by C. S. Myers; (3) initial investigations; (4) revision of the test and final ranking; (5) comparison of the scores in the color test with occupational color experience and ability; (6) comparison of the scores in the color test with those in other psychological and color tests; (7) summary and index. Three appendices dealing with the reliability of the test, further analyses of the test, and the objective measurement of color are included. "The color discrimination test devised for this research offers a highly satisfactory method for the selection of those persons who have keen color discrimination for employment in color-sorting and color-matching work. It is capable of revealing not only individual differences in hue discrimination but also individual differences in the constancy of these color responses. Further, its use is likely to provide information regarding individual differences in the effects of after-

excitation, color-background, color memory, and similar factors which influence color judgments under general and industrial conditions."—*R. J. Beitel, Jr.* (Clark).

6081. **Shartle, C. L. A clinical approach to foremanship.** *Person. J.*, 1934, **13**, 135–139.—A group of successful foremen and a group of workers with job skill equal to that of the foremen, but considered incapable of supervising others, were clinically studied. Combined interview and interest questionnaire scores differentiated the two groups without overlapping. From the case histories, the foremen showed a development from early childhood involving less withdrawal from others, less indifference to the actions of others, and fewer antagonistic reactions toward others. In many cases there was a close relationship between reported childhood behavior and present job behavior.—(Courtesy *Person. J.*)

6082. **Smith, E. D. Psychology for executives; a study of human nature in industry.** (Rev. ed.) New York: Harper, 1934. Pp. 327. $3.50.—See II: 1639. —*R. R. Willoughby* (Clark).

6083. **Stevens, S. N., & Wonderlic, E. F. The relationship of the number of questions missed on the Otis mental tests and ability to handle office detail.** *J. Appl. Psychol.*, 1934, **18**, 364–368.—The number of questions incorrectly answered or omitted on the Otis self-administering higher form, for a group of 160 managers in a large personal finance company, was compared with personal history records. Managers who have been criticized by company supervisors miss more items than those who have never been criticized.—*R. S. Schultz* (Psychological Corporation).

6084. **Watson, W. F. Stray thoughts on works management.** *Human Factor*, 1934, **8**, 312–322.—The author, a working man, emphasizes the part played by friction and inter-departmental jealousy in reducing efficiency. One of the chief functions of the industrial psychologist should be to act as an intermediary between the management and the "man on the job."—*M. Horsey* (National Institute of Industrial Psychology).

[See also abstracts 5865, 5868, 6102, 6107, 6108, 6109, 6112, 6134, 6138, 6171.]

EDUCATIONAL PSYCHOLOGY

6085. **Anderson, H. H. The relationship of nursery schools to public education.** *Ment. Hygiene*, 1934, **18**, 442–451.—Our aims in education are dependent upon the development of public insight into the needs of the child that can be met by educational training. There are many needs of the child that public education fails to meet today. Personality and social development of the child are the responsibility of the public school. The writer states that "public education is open to the charge that it is retarding the healthful mental development of the children in certain respects which are among the prime objectives of nursery education." There are, however, exceptions to that statement.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6086. **[Anon.] [A study of errata.]** Shanghai: High School Students Book Co., 1934. Pp. 63. $.15 mex.—This booklet presents the results of an investigation on errata in a certain elementary school at Nanking. A total of 245 erroneous characters were divided into 3 groups according to their pronunciation (81 words), meaning (75 words), and form (89 words). Errata of each category were classified into nouns, verbs, adjectives, adverbs, conjunctions, and prepositions, and then respectively treated. Two short tests of errata were appendixed.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6087. **Carter, T. M. The effect of college fraternities on scholarship.** *J. Appl. Psychol.*, 1934, **18**, 393–400.—High school grades and the college entrance intelligence test scores were combined into an "index of promise." This index when compared with grades in college courses (index of achievement) gives an achievement quotient. The index of promise when correlated with the index of achievement yields coefficients of .68 and .59 respectively for fraternity and non-fraternity men. These two groups show consistent differences in the average index of promise or achievement. Non-fraternity students with above-average indices of promise more frequently obtain indices of achievement higher than promise; and fraternity students with below-average indices of promise more often attain indices of achievement higher than promise. In general students with low indices of promise tend to make relatively higher indices of achievement (in comparison with index of promise) than those who have high indices of promise. —*R. S. Schultz* (Psychological Corporation).

6088. **Caswell, H. L. Practical application of mechanistic and organismic psychologies to curriculum making.** *J. Educ. Res.*, 1934, **28**, 16–24.—Discussion, from the two points of view, of the objectives of education, the making of the curriculum, and the methods of education.—*S. W. Fernberger* (Pennsylvania).

6089. **Chên, H. S. [Educational testing.]** Shanghai: Commercial Press, 1934. Pp. xvi + 361. $2.40 mex.—Part I of this textbook gives a general theoretical discussion of the position of testing work in education, elements and conditions of a test, kinds of tests, and the developmental history of mental and educational testing. Part II deals with Chinese intelligence tests, tests for school subjects (such as Chinese language, arithmetic, English language, natural study and history and geography), comparison of old-type and new-type examinations, and techniques of constructing a new-type examination. Part III deals with procedure and steps of administering a test, treatment of data, interpretation of results (including a discussion of the meaning of several variables in age scales and TBCF scores), and applications of test results. Part IV discusses the general steps of test construction, construction of TBC scale and of quality scales. Part V, being a general conclusion, deals with an evaluation of the testing movement.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6090. **Chên, H. S., & Chêng, W. H. [A survey of permanence of interests in high-school students.]**

Educ. & Voc. (Chinese), 1934, Ser. No. 157, 431–435. —The authors, having some time ago investigated the most and least interesting school subjects for a large number of boy and girl students, sent the same questionnaire to 218 of them after an interval varying from 6 months to 1 year. There were 60 junior and 158 senior high-school students, representing 7 middle schools at Shanghai. The percentage of persons who made the same choices at both times for each school subject as well as the percentage indicating degrees of sameness of interest at both times for each student are calculated according to two intervals. The results show that when the interval between the two investigations is 1 year, Chinese language, English language, arithmetic, and physics, among the most interesting school subjects, and "principles of Kuomintang," ethics, religion, and music, among the least interesting ones, have the largest percentages of choice on the second as compared with choices on the first reply. When the interval is 6 months, English language, physical exercise, Chinese language, and chemistry, among the most interesting school subjects, and "principles of Kuomintang," physical labor, geography, history, and physics, among the least interesting ones, have the largest percentages of choice on the second reply as compared with choices on the first reply. For a particular school subject, the larger the percentage of choice the second time as against the first time, the higher the permanence of interest for that school subject. The average of percentages for the most interesting school subjects, indicating the sameness of interest at two times separated by an interval of 1 year, is 59; and for the least interesting ones, 46. The average of percentages indicating the sameness of interest for the most interesting school subjects at two times separated by an interval of 6 months is 58; and for the least interesting ones, 47. The larger the value of this average, the more reliable (or more permanent) the interest for the school subject. For both time intervals, the value of the average is greater for the most interesting than for the least interesting school subjects, which fact seems to indicate that positively expressed interests are more reliable and therefore more permanent than negatively expressed interests.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6091. **Chên, H. S., & Chêng, W. S. [A survey of school-subject interests of the high-school girls.]** *Educ. & Voc.* (Chinese), 1934, Ser. No. 154, 201–205. —A questionnaire was sent to 200 senior and 200 junior high-school girls, requiring them to mark 5 most and 5 least interesting school subjects. The results showed that Chinese language, English language, and arithmetic were liked by most of them, while "principles of Kuomintang" is least interesting. Religion was also not liked so well. One thing which is contrary to common observation is that chemistry is preferred by 71 girls and biology by 42 girls; while drawing and handiwork, which are generally supposed to be the girls' most favorite subjects, are disliked by 77 and 69 students respectively. The relationship between interest in school subjects and scholastic performance was also studied. Differences between average marks of the 5 most interesting and those of the 5 least interesting as well as those of all other school subjects, differences between average marks of the 5 least interesting and those of all other school subjects, and differences between average marks of the first of the 5 most interesting and those of the first of the 5 least interesting school subjects, were calculated. When the difference is positive and large, and when reliability of the difference is high, it means that scholastic performances and interests in school subjects are well correlated. The results showed that, except in Junior II class, values of the difference were all positive, and the ratio of the difference to the standard error of the difference was around 2.0, being a little below that obtained elsewhere from high-school boys. The present investigation seems to show that interests in school subjects correlate in general positively with scholastic performances, and indicate that interesting school subjects generally have better scholastic work.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6092. **Chen, L. K. [A textbook of educational psychology.]** Shanghai: Commercial Press, 1934. Pp. 542. $1.80 mex.—This book is written for the use of normal school students. It begins with a general introduction in which are discussed the nature, subject matter, method of study, and problems of educational psychology. Part I deals with human nature and covers the following chapters: (1) physiological foundations of behavior; (2) origin, and (3) development of human nature; (4) reflexes and instincts; (5) emotions; (6) measurement of human nature; and (7) variability of human nature. Part II deals with the modifiability of human nature and covers the following chapters: (8) learning and laws of learning; (9) improvement, (10) transfer, and (11) economy of learning; (12) psychology of school subjects; (13) measurement of educational results; (14) study of exceptional children; and (15) an outline of the psychology of adult learning. The material is drawn from the writings of Thorndike, Gates, Pintner, Starch, and Sandiford. 26 tables and 61 diagrams.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6093. **Crooks, K. B. M. Entrance examinations for negro colleges.** *J. Negro Educ.*, 1934, **3**, 593–597. —This portion of the study was undertaken to determine what value college entrance examinations have as "presumptive tests" of the quality of work students can do. No definite conclusions can be drawn until college records, scores, and after-college performance of a large number of average students have been studied. A study of that nature is now under way. The following tentative conclusions were drawn. High school graduates obtaining scores in four or more tests placing them below the 8th grade are not considered suitable material for college. Those whose N.I.T. or Terman group scores placed them below the 9th grade are also unsuitable material for a reputable college, if all their other test scores are 10th grade or below. Scores made by "honor" students in college indicated that in the three tool subjects the grade and high schools are doing poor work. The scores in Cross English test, Monroe reading test and

technical English test help college authorities select those students who are otherwise suitable but who need training in the three R's.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6094. **Evans, F. Vocational guidance and the senior schools.** *Human Factor*, 1934, **8**, 323–329.—The author describes the methods of vocational guidance employed by education authorities in the county of Kent, England, and makes suggestions regarding the training and duties of "careers masters."—*M. Horsey* (National Institute of Industrial Psychology).

6095. **Finch, F. H., & Nemzek, C. L. Prediction of college achievement from data collected during the secondary school period.** *J. Appl. Psychol.*, 1934, **18**, 454–460.—For a group of 118 University of Minnesota graduates, high-school honor-point averages, college aptitude test ratings, and IQ's correlate .77, .42, and .48 respectively with university honor-point averages. College aptitude test ratings and IQ's obtained in high school correlate .62. The investigation indicates that it is possible under favorable conditions to utilize high-school marks as a distinctive measure in predicting college achievement and with 36 to 39% better than chance success.—*R. S. Schultz* (Psychological Corporation).

6096. **Fitzgerald, J. A., & Geoghegan, P. S. Letter-form errors in letters written by fifth-grade pupils.** *Elem. School J.*, 1934, **35**, 42–47.—The writers analyzed the "amazingly numerous" letter-form errors which were made by fifth-grade children in 748 letters "written in life outside the school." Types of errors were found to occur in the following order of frequency: closing, spacing and margin, heading, miscellaneous, salutation and signature errors. The average number of mistakes per letter was 5.39 for the boys and 4.61 for the girls.—*P. A. Witty* (Northwestern).

6097. **Gates, A. I., & Graham, F. B. The value of various games and activities in teaching spelling.** *J. Educ. Res.*, 1934, **28**, 1–9.—A study of the interest and ability developed by a program devoted partly to spelling games, puzzles, problems, work with words, directed word activities and the like, as compared with a program based almost exclusively on direct study of word lists. Tests were given to 38 classes totaling 1565 pupils from grades 2–8 inclusive in a public school in Brooklyn, N. Y. In the test group 15 different kinds of "games" were employed. Control groups were used. From a statistical study of the results the authors conclude "that the two methods increase spelling ability in roughly equal degree, but that the book-directed programs combining word study with word games and other activities are more interesting under the conditions of the study" than a mere study of word lists.—*S. W. Fernberger* (Pennsylvania).

6098. **Gray, H. A. An approach to the measurement of biological attitudes and appreciations.** *J. Educ. Res.*, 1934, **28**, 25–29.—A test, without results, is given for application in a nature study course for the upper intermediate grades. Fourteen types of test items are given.—*S. W. Fernberger* (Pennsylvania).

6099. **Gross, A. E. A pre-primer vocabulary study.** *Elem. School J.*, 1934, **35**, 48–56.—"Ten pre-primers, all with copyright dates of 1927 or later, were used to find the actual vocabulary and the frequencies of each word contained in pre-primers now on the market." The combined vocabulary of the ten books comprised "393 words and 8,831 words of reading material." The 238 words which occur four or more times are presented in a table showing their frequency in each book, and their rank according to frequency in all books. Suggestions are given for the effective utilization of the word list.—*P. A. Witty* (Northwestern).

6100. **Hamilton, D. W. An experiment in individual instruction in algebra in a school for the blind.** *Teach. Forum (Blind)*, 1934, **7**, 2–5; 12.—The application of special methods such as the Dalton plan and the Winnetka plan to instruction in algebra in schools for the blind is discussed. The author presents the various problems confronting the teacher of the blind. His own success with the Winnetka plan in a second-year class led to its use with a first-year group. The units of work were presented to each pupil; hints and explanations were used, and on completion of the work sheets tests were given to determine the mastery of fundamentals. The instructor found it necessary to check up on methods employed by pupils, in order to save time and faulty habit formation. When class instruction failed to aid a pupil sufficiently, individual conferences were given. The teacher kept a class bulletin record of assignments, progress, tests, and completion of units of work, and also kept an individual record sheet for each pupil. This made note of difficulties, types of error, mastery of mistakes, attitudes, and progress for each pupil. The advantages of the method were apparent in the increased self-reliance found among pupils; in the rapid progress of the brighter pupils; in increase in individual responsibility; and in interest in mastering the problem. Dull pupils were not pushed too rapidly, nor did they retard the faster pupils.—*S. S. Hawk* (Univ. Southern California).

6101. **Hill, J. L. Some learning processes.** Nashville: S. S. Board, So. Bapt. Convention, 1934. Pp. 115. $.60.—A textbook on teaching methods for Sunday school teachers.—*R. R. Willoughby* (Clark).

6102. **Hillman, L. F. Training for vocations in those of high and low intelligence.** *J. Appl. Psychol.*, 1934, **18**, 401–408.—An analysis of scores of 147 men and women who were given the Thurstone Psychological Examination Test IV in 1928 shows that "the higher the intelligence of an individual, the less likely is he to follow a vocation for which he is trained." This trend is more pronounced with women than with men. The majority of women scored above the median in intelligence, while the majority of men scored below the median.—*R. S. Schultz* (Psychological Corporation).

6103. **Hinst, B. Erziehungsfehler und Fehlentwicklung.** (Educational mistakes and maldevelop-

ment.) *Zsch. f. päd. Psychol.*, 1933, **34**, 416–422.—Most treatises on pedagogical errors are either descriptions and enumerations of typical educational mistakes—as such they seldom exceed Salzmann's *Krebsbüchlein* and other educational classics—or presentations evolved from one-sided theoretical presumptions listing every possible conflict of the child as an educational blunder. Such presentations usually overlook the fact that every principle may be applied rightly as often as wrongly, that there may be as many mistakes as there are live reactions, and that even the most successful educator may err. Before errors can become the subject of re-investigation their relations within the educative process must be discovered. The educative process is conceived of as the continuous interplay between growth and influence (endowment and environment). Those dispositions (behavior patterns) in the child that incline toward symptoms of miseducation are actualized through educational mistakes. Maldevelopment is the less dependent upon endowment (1) the more easily the child is influenced by his environment, (2) if no organic reference is found, (3) if parents make obvious mistakes, (4) if the anamnesis reveals also other inclinations to deviant reactions.—*W. Reitz* (Chicago).

6104. **Ho, C. J. [What college graduates think of higher education.]** *China Critic*, 1934, **7**, 611–613.—In connection with an investigation made by the National Association of Vocational Education under the direction of the writer to study the vocational status of college graduates for the purpose of throwing some light on the paths of prospective students, the graduates were asked to state what college education meant to them and to express themselves in regard to the betterment of higher education. About 124 graduates who have come out of colleges in the last 5 years, representing 21 departments of study in 15 different colleges and universities, answered these questions. To sum up their opinions, about ⅓ of the college graduates regard the increase of knowledge as the chief value that they have received from the colleges. About ¼ of the graduates feel that they have acquired only the techniques and habits of study, and about 1/10 of them feel that their thinking has become rationalized and systematized. While a large number recognize the intellectual value of higher education, few have felt any moral influence and still fewer have received any physical development. A considerable number admit the market value of a college diploma. To improve higher education, the college graduates propose that the curricula should be practical, socialized, and genuinely Chinese. Emphasis should be given on moral training to develop integrated and effective personality. Duplication in the organization should be eliminated and faculty personnel should be carefully selected. Students should be strictly examined to elevate the standard, and better equipment should be provided. As to vocational life of students, assistance should be given in the form of placement service.—*C.-F. Wu* (Nat. Res. Inst. Psychol., Shanghai).

6105. **Hopkins, L. T., & Mendenhall, J. E. Achievement at Lincoln School: a study of academic test results in an experimental school.** New York: Teachers College, Columbia University, 1934. Pp. 65.—An explanation is given of the origin and purpose of Lincoln School, in which the educational objectives, and hence the curriculum, differ considerably from those of the conventional school; and a discussion is given of the integrated and experience curricula. From a comparison of the achievement resulting from these curricula, the authors find need of a new type of achievement test which will also measure desirable outcomes not covered by standard tests, and point out that objective tests, while valuable, have relatively less validity in the new curriculum than in the old. Their study showed that earlier experience and length of residence in Lincoln School had little effect upon the pupil's standard intelligence and achievement test scores, but that the pupils were of younger chronological age, higher IQ, and approximately the same achievement quotient as measured by old and new Stanford Achievement Tests. On college board entrance examinations, students of Lincoln School received distinctly higher marks than students of other high schools, and over 50% of their college marks were A's and B's.—*M. Gifford* (Worcester State Hospital).

6106. **Lichtenstein, A. Can attitudes be taught?** *Johns Hopkins Univ. Stud. Educ.*, 1934, No. 21. Pp. 89. $1.25.—A review of earlier studies on attitudes in which no agreement was found, and an explanation of the author's study, an attempt to measure the influence of education on two attitudes: (1) scientific open-mindedness, and (2) preference of outdoors to movies. These attitudes were stressed in connection with teaching over a period of a year, the subjects being some 900 children of the intermediate grades of public school. Three tests were used to test the first attitude, and ballots and diaries to test the second. They showed superstitions to be reduced by the experimental procedure, but social attitudes, scientific attitudes, and the preference for movies over outdoors were not affected. There was no significant relationship between grade, age, intelligence or sex and performance on the tests. The author gives suggestions for further experimentation which he hopes to carry out; these include the development of a means of getting at the actual conduct in a given situation, the determination of transfer of attitude from one field of education to other fields, determination of any carry-over of attitudes operating more strongly at a later date, the influence of teacher's attitudes, etc.—*M. Gifford* (Worcester State Hospital).

6107. **Link, H. C. Wheat and chaff in vocational guidance.** *Occupations*, 1934, **13**, 11–17.—A discussion of what the author considers to be the basic principles of vocational guidance: (1) "The basic problem in the schools is one of *educational* guidance rather than *vocational* guidance." (2) "Educational guidance should be the *major* concern of our educational institutions, not an incidental or an *additional* (and easily subtracted) activity such as vocational guidance has been in the past." (3) It is important that the eighth or ninth grade pupil should know thoroughly the educational requirements of typical

occupations and his capacity to acquire such education. (4) "Educational guidance, with its vocational considerations, should start from an analysis of the individual, not from a consideration of the economic system and its occupational eccentricities." (5) "Educational guidance should be based on scientific tests of the individual's capacities and aptitudes." The critical points of choosing a high school course and choosing a college are stressed.—*R. H. Brown* (Clark).

6108. **Lyon, V. W. A study of vocational abilities of students who have attended the Illinois School for the Deaf.** *J. Appl. Psychol.*, 1934, **18**, 443–453.—The results of a questionnaire study show that only 8% of boys follow the trade for which they were trained in the school for the deaf. Suggestions are made for aptitude testing, extension and modification of training, establishment of employment bureaus, and the utilization of field workers in finding more vocational opportunities. 66% of the boys and 36% of the girls are regularly employed.—*R. S. Schultz* (Psychological Corporation).

6109. **Macrae, A. A target for critics: Professor Thorndike's findings draw fire. II.** *Occupations*, 1934, **13**, 21–29.—The author criticizes the vocational guidance technique used by Thorndike *et al.* (*Prediction of Vocational Success*), points out "the extremely inadequate nature of the data collected for vocational guidance," indicates the impossibility of taking earnings and job-levels as the criteria of successful vocational guidance, and considers Thorndike's treatment of the results from the Birmingham investigation.—*R. H. Brown* (Clark).

6110. **McGinnis, W. C. Supervisory visits and teacher rating devices.** *J. Educ. Res.*, 1934, **28**, 44–47.—Questionnaire replies from 408 teachers to 5 questions on the relation of supervisory visits and the solving of the teachers' problems indicate that such visits are effective for problems of class-room management, but less effective for problems of methods of teaching. A questionnaire to 2,848 teachers was constructed to determine the value of teacher check lists and rating devices. There is wide scatter of the opinions of the teachers, but the largest number believe that such devices represent only a low degree of good supervisory practice.—*S. W. Fernberger* (Pennsylvania).

6111. **Newell, H. W. The methods of child guidance adapted to a public-school program.** *Ment. Hygiene*, 1934, **18**, 362–372.—A conference is held at the school on each child and a detailed report is sent to the principal and the teacher. Specific objectives in the child's development are set forth and the teacher is urged to commend even the slightest improvement noticed in reference to these aims. She is also urged to send an approving note to the principal or parents and select the child for some special privilege. After a few weeks it is generally possible to discontinue the intensive treatment and merely keep the case under observation. The author stresses the importance of cooperation between home and school to prevent maladjustment.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6112. **Paterson, D. G. A target for critics: Professor Thorndike's findings draw fire. I.** *Occupations*, 1934, **13**, 18–21.—After a consideration of *Prediction of Vocational Success* by E. L. Thorndike *et al.*, its good and bad points, the author concludes that "undoubtedly, the Thorndike study will prove to be an epoch-making contribution in the history of vocational psychology, primarily because the negative character of the evidence will tend to intensify research efforts all along the line."—*R. H. Brown* (Clark).

6113. **Pintner, R., Ryan, J. J., Aleck, A. A., West, P. V., & Crow, L. D. An outline of educational psychology.** New York: Barnes & Noble, 1934. Pp. 215. $.75.—One of the titles in the "College Outline Series" which presents a digest of the field of educational psychology.—*D. Shakow* (Worcester State Hospital).

6114. **Reeder, C. W. Should increases in grades follow increases in intelligence test scores?** *School & Soc.*, 1934, **40**, 399–400.—For four years there has been an increase in mental-test score average among entering freshmen in the College of Commerce and Administration of the Ohio State University. There has not been a corresponding increase in grade-point ratio. Possible reasons for the latter fact are considered.—*H. L. Koch* (Chicago).

6115. **Richmond, W. V. An introduction to sex education.** New York: Farrar & Rinehart, 1934. Pp. xiv + 312. $2.50.—Designed to give a "summary of our present knowledge upon the biology, the history, and the psychology of sex," this book presents eight chapters on the following subjects: general biological considerations, biology of reproduction in man, sex in primitive society, the historical period, the psychology of sex, problems of sex, sex and society, and sex and education. A bibliography of reference books follows each chapter.—*J. Mc V. Hunt* (Worcester State Hospital).

6116. **Rogers, H. W. Science in secondary school and college.** *School & Soc.*, 1934, **40**, 334–336.—For the groups studied the correlation between score on an intelligence test and grades made in a science course taken in college ranged from .28 to .63, the average being .47. Grades in physics and chemistry showed a closer relationship with general scholastic average than with intelligence-test score. In the case of the students who took chemistry before physics, the correlations between grades in physics and mental-test rating and the former and general scholarship were higher than those for chemistry grades. There was no significant relationship between general scholarship in college and exposure to biology, chemistry, or physics in high school. The students who took work in a science in the secondary school tended, however, to make somewhat higher grades in that science in college than students not so prepared. There was a wide discrepancy between average grade earned in college biology, chemistry, and physics.—*H. L. Koch* (Chicago).

6117. **Rummell, H. S. Scholastic ranking of religious groups.** *School & Soc.*, 1934, **40**, 286–288.—The author computed the average scholastic index of unselected students at the University of Missouri professing membership in various church groups. Above the general level in scholarship were the Jews, Methodists, and Episcopalians, while below average were the Christian Scientists, Disciples, Presbyterians, Catholics, Baptists, and those claiming no church membership. The difference between the extreme groups—i.e. the Jews and Baptists—is statistically significant. A ranking by Fry of the denominations on the basis of the relative number of their members listed in *Who's Who* does not agree with the present author's findings. Jews, Methodists, Disciples, and Catholics rank relatively lower according to Rummell's findings than according to Fry's, while the reverse is true for Episcopalians, Presbyterians, and Baptists. Christian Scientists hold the same rank according to both schemes.—*H. L. Koch* (Chicago).

6118. **Sandiford, P. The validity of tests and examinations.** *The School*, 1934, 465–468.—*R. R. Willoughby* (Clark).

6119. **Sandiford, P. The reliability of tests and examinations.** *The School*, 1934, 561–566.—*R. R. Willoughby* (Clark).

6120. **Segel, D. Differential diagnosis of ability in school children.** Baltimore: Warwick & York, 1934. Pp. 86. $1.40.—It is the author's belief that the application of the differential diagnostic technique has in it the righting of a serious educational defect, namely the tendency of mass education to level a child's gifts and deficiencies to a monotonous plane. Teaching is extremely apt to be directed, without this technique, more toward defects than toward strengths. The need for making differential diagnoses of children's abilities is a twofold one: first, for immediate instructional purposes in enriching a child's experiences in the particular line in which he is best fitted, and second, for accurate educational guidance. The bulk of the volume is devoted to a discussion of techniques which may be used in determining the efficiency of tests in making a differential diagnosis, especially since most test batteries and almost all diagnostic tests have been issued without adequate evidence of their efficiency as instruments of differential diagnosis. Considerable attention is devoted to the application of Kelley's method for evaluating the efficiency of tests, and to methods for getting equivalent scores on tests. A final chapter considers some available tests and measurements which appear to have value in making a differential diagnosis.—*L. A. Averill* (Worcester State Teachers College).

6121. **Seyfert, W. C., & Tyndal, B. S. An evaluation of differences in teaching ability.** *J. Educ. Res.*, 1934, **28**, 10–15.—Two groups of 73 girls each were selected from among the students of two teachers, equated for chronological age and mental age (Terman scores). The Ruch-Popenoe General Science Test was administered. Differences in these scores for the two groups are believed to indicate the teaching ability of the two teachers. By a consideration of the mental ages of the students and the scores on the Rulon test it seems possible to the authors to express the teaching ability in absolute units. They conclude "with regard to this particular case that the difference in teaching abilities is equivalent to about a quarter of a year of mental growth on the part of the students."—*S. W. Fernberger* (Pennsylvania).

6122. **Tenwolde, H. A comparison of handwriting of pupils in certain elementary school grades "now and yesterday."** *J. Appl. Psychol.*, 1934, **18**, 437–442.—The quality of penmanship for public school pupils in grades four to eight scored by the Thorndike handwriting scale was found to be significantly poorer in 1931 when compared with samples in the same school grades of 1879 and 1912.—*R. S. Schultz* (Psychological Corporation).

6123. **Tilton, J. W. The feasibility of ability grouping.** *J. Educ. Res.*, 1934, **28**, 30–35.—From a summary of the literature the author concludes that, although the data extant are not very precise, they suggest that ability grouping is feasible.—*S. W. Fernberger* (Pennsylvania).

6124. **Tumlirz, O. Die psychologische Einheit der Grundsätze des Bildungsverfahrens.** (The psychological unity of the fundamentals of educational procedure.) *Zsch. f. Jugendk.*, 1934, **4**, 97–106.—In place of Kirschensteiner's seven independent principles of cultural development the author proposes four fundamental interrelated principles which comprise an essential unity: (1) the principle of free self-formation, involving activity in a broad sense and freedom; (2) authority, inevitable to man as a social being; it should, however, be a personal authority the justice of which is recognized, so that submission to it is willingly accepted; (3) the principle of conformity to development, based on (4) a knowledge of its essential stages. The first two and the last two belong most closely together. Freedom is possible only if authority is recognized, and a rounded development is made possible by a careful adjustment of educational procedures to the child's capacity and needs at every age.—*M. Lee* (Chicago).

6125. **U. S. Office of Education. The education of exceptional children.** (Chap. VI of *Biennial Survey of Education in the U. S.*, 1930–32.) *U. S. Off. Educ. Pamph.*, 1933, No. 2. Pp. 85.—Statistics and a discussion of present trends in the special educational handling of the exceptional child.—*C. M. Louttit* (Indiana).

6126. **Unzicker, C. E. An experimental study of the effect of the use of the typewriter on beginning reading.** *Teach. Coll. Contrib. Educ.*, 1934, No. 610. Pp. viii + 95.—226 pupils in 10 first-grade classes were divided into two groups on the basis of the Detroit First Grade Intelligence Test. For 7 months, the experimental group took 75 to 90 minutes per week of typewriter work. Otherwise, the two groups were handled the same. Reading achievement was measured at the end of 3 and 7 months by the following tests: Gates Primary Reading Tests, Detroit Word Recognition, Haggerty Reading Examination, Gates Visual Perception A1. At the final testing, Gray's

Oral Reading and Gates Visual Perception B2, were also given. The results "indicate a trend of slight but constant superiority on the part of pupils who used typewriters." Children low in intelligence profited most by the use of the typewriter. More writing was done by the children who used typewriters. The bibliography lists 32 titles.—*J. M. Stalnaker* (Chicago).

6127. **Wallin, J. E. W. The philosophy of education for the mentally handicapped child.** *Ment. Hygiene*, 1934, **18**, 393–408.—The author's thesis is that in a constitutional democracy all the children of all the people are entitled to equal and exact social justice in the enjoyment of the educational opportunities afforded by schools supported by the state.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6128. **Ward, P. W. Attitudes of average and superior students toward survey courses.** *School & Soc.*, 1934, **40**, 398–399.—By means of a questionnaire it was discovered that (1) the University of Syracuse students ranked their survey courses high in terms of both interest and profit; (2) they preferred smaller sections to large general lecture sections; (3) the superior students did not differ in attitude toward survey courses from the less effective students; (4) about one-fifth of the students had no field of special interest. The value of student criticism is discussed.—*H. L. Koch* (Chicago).

6129. **Wile, I. S. The visiting teacher.** *Ment. Hygiene*, 1934, **18**, 380–392.—The visiting teacher should not merely coordinate and cooperate; she should interpret the home to the school and the school to the home. She should not be answerable to classroom teacher or principal, but should be an investigator of a child guidance clinic, answerable only to the superintendent of schools. Her chief contribution should be preventive work, including corrective and remedial care. She must be a well integrated personality, and must have a knowledge of the value of mental measurements. In short, she should have the point of view of a mental hygienist.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6130. **Witty, P. A., & Theman, V. The psycho-educational clinic.** *J. Appl. Psychol.*, 1934, **18**, 369–392.—A detailed questionnaire study was made on organization, personnel, training, practices, etc., in thirty-four psycho-educational clinics. Results, procedures and general practices in the psycho-educational clinic at Northwestern University are reviewed. Special case studies of reading and spelling difficulties are cited to show the diagnostic and therapeutic program.—*R. S. Schultz* (Psychological Corporation).

[**See also abstracts 5943, 5957, 6023, 6048, 6184.**]

BIOMETRY AND STATISTICS

6131. **Dufton, A. F. Graphic statistics.** *Science*, 1934, **79**, 564.—A criticism of Bliss' method of probits and the presentation of the author's graphical representation of a frequency distribution.—*P. Seckler* (Radcliffe).

6132. **Hotelling, H. Analysis of a complex of statistical variables into principal components.** Baltimore: Warwick & York, 1933. Pp. 48. $1.20.—Reprint from *The Journal of Educational Psychology*, September and October, 1933. (See VIII: 645, 1354.)—*R. R. Willoughby* (Clark).

6133. **Snedecor, G. W. Biological variation vs. errors in measurement.** *Science*, 1934, **80**, 246–247.—By means of two examples the author demonstrates how the method of analysis of variance furnishes a mode of testing the relation between the variation in the experimenter's measurements and the biological variation of the entity examined.—*P. Seckler* (Hartford, Conn.)

6134. **Stevens, S. N., & Wonderlic, E. F. An effective revision of the rating technique.** *Person. J.*, 1934, **13**, 125–134.—The construction and development of a rating device which combines advantages of previous rating scales and eliminates many of the statistical sources of error is described in this paper. Its use for a two-year period in a business organization as a training as well as a predictive device has furnished more than 1900 cases, a study of which indicates a consistency of rating by judges. Supporting data indicate that the "halo effect" and the acquaintanceship factor do not materially affect the judgments given by raters using this device. The most significant use for this rating scale is that of an analytical aid in training.—(Courtesy *Person. J.*)

6135. **Zubin, J. Note on the standard error of the difference between coefficients of variation of correlated variables.** *J. Appl. Psychol.*, 1934, **18**, 491–492.—Derivation of a formula for the standard error of the difference between the coefficients of variability of two correlated variables.—*R. S. Schultz* (Psychological Corporation).

[**See also abstract 6031.**]

MENTAL TESTS

6136. **Fischgold, F. Une présentation nouvelle des profils psychologiques de Vermeylen.** (A new presentation of Vermeylen's psychological profiles.) *J. de psychol.*, 1934, **31**, 467–470.—The limited number of subjects examined and the unrepresentative sampling of cases have given cause for criticism of the Vermeylen tests, although these are a convenient instrument for the examination of cases of mental deficiency, and although the results obtained are comparable with those derived from an application of the Binet test. Hitherto too much stress has been placed on averages and too little on dispersion. Suggestions are made to overcome these alleged defects, together with an outline of a less artificial notation.—*P. S. de Q. Cabot* (Harvard).

6137. **Germain, J., & Rodrigo, M. Primeros resultados de un test de inteligencia general.** (First results of a general test of intelligence.) *Arch. de neurobiol.*, 1933, **13**, 1189–1221.—The report of results of a group test of general intelligence, based upon the Spearman theory, composed of items divided into the following groups: opposites; syllo-

gisms; general information; truisms; definitions; analogies; moral judgment; critical judgment; text completion; and attention. Reliability, computed by correlating the results of each of the ten specific tests with the scores made on the battery, ranged from .48 to .73. Validity, measured by correlating the results on the battery with scores made on the Binet scale used as a criterion, was .62. The test was partially standardized on age groups of 11, 12, 13, 14, and 15 years, and adults. Standardization is now being carried out with 4,244 subjects.—*R. M. Bellows* (Ohio State).

6138. **Hildreth, G. Occupational status and intelligence.** *Person. J.*, 1934, **13**, 153–157.—600 public school children and a similar number of children in a private school were classified according to the occupation of the head of the family. Stanford-Binet test records were available for all of the children. The Taussig five-fold occupational grouping scheme was applied to the public school pupils and median IQ's were computed for each group. The median IQ's were as follows: professional, 113; executive and business, 107.5; skilled labor and clerical, 97.5; semi-skilled labor, 84; and unskilled labor, 75.7. Wide overlapping in mental ability between the several occupational levels was found. The entire population of the private school fell into the first three Taussig groups.—(Courtesy *Person. J.*)

6139. **Peatman, J. G., & Locke, N. M. Studies in the methodology of the digit-span test.** *Arch. of Psychol.*, 1934, No. 167. Pp. 35.—Results and interpretations of an investigation into the major aspects of the methodology of the digit-span test are presented. Five methods of presenting the digit-span material and three methods of score determination were compared and evaluated. Each series consisted of ten different numbers ranging in size from 4 to 13 digits. It is concluded that with the general situational procedures used in these studies, the most satisfactory method to be employed in measuring the immediate digit span is probably the auditory-irregular at a constant rate of from one digit per two-thirds second to one digit per second. If an investigator is interested in measuring with the digit material the visual span, instead of or in addition to the auditory span, the visual method of presentation should evidently be modified by separately presenting each digit, in order to place the visual and auditory methods on a comparable basis. The methods of scoring analyzed were the basal, weighted, and highest methods. The weighted method is preferable. The subjects were 421 males, average age 19. With no age-group would the basal or highest score give a measure more adequate than the weighted one; most probably the latter kind of score would be generally preferable.—*E. M. Achilles* (Columbia).

6140. **Seagoe, M. V. An evaluation of certain intelligence tests.** *J. Appl. Psychol.*, 1934, **18**, 432–436.—Comparisons were made of intelligence quotients on group tests given at two-year intervals in grades 1B, 3B, 5B and 7B. Performance tests such as the Detroit First Grade Intelligence Test and the Pintner-Cunningham Primary Mental Test "yield IQ's from five to eleven points higher than those with which they were compared, and fail to correlate as highly with other tests as do tests involving a larger verbal element." Middle and upper grade tests, such as the Terman Group Test of Mental Ability, the National Intelligence Scales, and the Detroit Primary Intelligence Test correlate highly with each other and yield comparable IQ's. "Early primary intelligence tests of a performance type correlate with middle and upper grade tests .50 to .65; middle and upper grade tests correlate with each other .70 to .87."—*R. S. Schultz* (Psychological Corporation).

CHILDHOOD AND ADOLESCENCE

6141. **Aall, A. Eine experimentelle Untersuchung über das moralische Urteil bei Kindern.** (An experimental investigation on moral judgment in children.) *Nederl. tijdsch. v. psychol.*, 1934, **2**, 77–96.—*C. Koster* (Huntington).

6142. **Abel, L. B. A test for eye-hand coordination at the fifth year level.** *J. Appl. Psychol.*, 1934, **18**, 418–421.—A series of sixteen "tentative" paper folding tests for establishing the 5-year mental age level and similar tests from the Randall's Island performance (4-year M.A.) and Kuhlmann-Binet scales (6-year M.A.) were administered to 48 inmates of the New York City children's hospital. The group ranged in M.A. from 4 years 3 months to 6 years 11 months and in IQ from 28 to 90. Two tests were found which met the criterion for suitability at the 5-year mental age level.—*R. S. Schultz* (Psychological Corporation).

6143. **Bronstein, I. P., & Brown, A. W. Hypothyroidism and cretinism in childhood.** *Amer. J. Orthopsychiat.*, 1934, **4**, 413–420.—Twenty cases of hypothyroidism have been given repeated psychological tests over a period of one to five years. There is evidence that early recognition and persistent treatment are important factors. Most of the group had IQ's between 50 and 70; a few showed evidences of growth to 14 years of age and normal mental development.—*H. Peak* (Randolph-Macon).

6144. **Daniels, P. C. Discrimination of compositional balance at the pre-school level.** *Psychol. Monog.*, 1933, **45**, No. 1, 1–11.—The method used in studying compositional balance permitted comprehension by a fair proportion of two-year-old children, and was difficult enough to challenge the six-year level. The author sought an unequivocal determination of the child's compositional balance. The pre-school children preferred balance to unbalance in tri-dimensional designs. There were large individual differences, and esthetic discrimination was found not to be highly correlated with general intelligence.—*H. Cason* (Wisconsin).

6145. **Dow, M. Playground behavior differentiating artistic from non-artistic children.** *Psychol. Monog.*, 1933, **45**, No. 1, 82–94.—An investigation was made of the playground behavior of artistically superior and inferior groups of children. The differences found were primarily dependent upon the

presence or absence of equipment. Artistic children engaged less in physically active and social play and more in play involving equipment than did non-artistic children. The primary difference between artistic and inartistic groups seemed to be the greater interest of the artistic group in, and the correspondingly greater response to, play material.—*H. Cason* (Wisconsin).

6146. **Fowler, B. P. The child as affected by the family.** *Ment. Hygiene*, 1934, **18**, 431–441.—The four major functions of the family described by the White House Conference on family life are summarized. The four things a child derives from family life are: controlled environment; inculcation of social values; orientation; and recreation and liberation. By the time a child enters school the basis of his health is already laid. The child brings to school fundamental social habits. They are: his attitude toward adults; basic social attitudes; sex; manners; security or lack of security; varying degrees of dependence as well as informational background; a sense of responsibility; and often ill-advised religious training. In all these problems an attempt should be made to avoid conflict between home and school. The part parent study groups play is stressed.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

6147. **Grippen, V. B. A study of creative artistic imagination in children by the constant contact procedure.** *Psychol. Monog.*, 1933, **45**, No. 1, 63–81.—48 children three to eight years old were studied by the constant contact procedure for creative artistic imagination. A special study was made of 4 talented subjects and 5 non-talented or artistically uninterested subjects in order to discover differences between the two types. Creative imagination generally did not function in children below the age of five, but some children at five exhibited abilities comparable to those of average children seven years old. Seven categories of imaginative functioning were recognized in the 146 paintings and drawings produced under semi-experimental conditions. The sources of the child's imaginative conceptions were found to be principally incidents in the local and immediate environment, physical aspects of the local environment, books, magazines and pictures, and travel.—*H. Cason* (Wisconsin).

6148. **Harrison, M. L. The nature and development of concepts of time among young children.** *Elem. School J.*, 1934, **34**, 507–514.—The writer reports a study aiming to determine the nature and development of concepts of time among children in the kindergarten, first, second, and third grades. Using 50 common terms (not listed), selected from eight vocabulary studies (not cited), the writer recorded the responses made to the terms in 160 individual interviews. These responses were then classified in seven categories showing varying degrees of comprehension. A correlation of .66 ± .04 between the development of concepts of time and grade placement is said to demonstrate a "fairly close" relationship. The correlation between grasp of concepts of time and mental age was .70 ± .03; between grasp of concepts of time and chronological age, .58 ± .05. The writer concludes that "these [latter] correlations indicate that concepts of time develop in closer agreement with inner maturation, as indicated by mental maturity, than with training and experience, as indicated by chronological age and grade placement." Educational implications and applications of the data are suggested.—*P. A. Witty* (Northwestern).

6149. **Hartenstein, E. Aktuelle Kulturinhalte im Spiegel der Kinderzeichnung.** (Present culture content as reflected in children's drawings.) *Zsch. f. Jugendk.*, 1934, **4**, 106–120.—In order to determine the extent to which the present social pattern affects the mental content and interests of children, 1927 spontaneous drawings of boys and girls between the ages of 4 and 15 were analyzed. The material was collected in 1932 in the period just preceding the manifestation and recognition of the national awakening. 29.3% of the boys' and 15.6% of the girls' drawings were actual representations of events, persons and things. Technical motifs, such as modern machines, were more often chosen by the boys than by the girls and were most frequently faithful. Sports, buildings, social and political motifs were less often literally drawn. At times literalness was combined with imaginary elements. Girls were in general less factual and more interested in legends, festivals and children's scenes. With increasing age (8–15) the tendency in boys is toward decreased actuality. Girls become more literal up to 13 and then less so. Association with the opposite sex diminishes markedly the sex differences in the drawings.—*M. Lee* (Chicago).

6150. **Jasper, C. C. The sensitivity of children of pre-school age to rhythm in graphic form.** *Psychol. Monog.*, 1933, **45**, No. 1, 12–25.—An attempt was made to study the ability of children two to six years of age to respond positively to graphic rhythm by regular repetition in two-dimensional form. The *r* between chronological age and design rhythm was .69. There was no positive relation between rhythm of design and tests designed to test general intelligence.—*H. Cason* (Wisconsin).

6151. **Kuhn, H. J., & Schaal, R. Grundfragen der sozialen Entwicklung und Jugend.** (Basic problems of social development and youth.) *Zsch. f. pād. Psychol.*, 1934, **35**, 266.—Outlines for the social development of the younger collaborators in the Tübingen seminar.—*D. Krieger* (Leipzig).

6152. **Lange, G., & Neuhaus, W. Der Strukturwandel der Kindersprache während der Zeit vom 6. bis 9. Lebensjahr.** (The change in the structure of the child's language between the ages of 6 and 9.) *Arch. f. d. ges. Psychol.*, 1934, **91**, 200–228.—A study has been made of the development of the use of the sentence with six- to nine-year-olds, the material being drawn from a Burgerschule class in Göttingen, containing thirty children. The method chosen in order to get spontaneous expression was that of allowing children to draw and asking for descriptions of their drawings. Verbatim records were made. Stories were also told for reproduction, a method of less value

for spontaneity. The six-year-old habitually uses the simple sentence, the single verb, or a verb with one object. At about seven the single verb with two objects appears, and later the complex form of sentence is used, revealing more intricate thought processes. Time, place, and cause sentences are infrequent before seven. The most marked change seems to come at seven years of age.—*A. B. Herrig* (Michigan Central State Teachers College).

6153. **Lippert, E. Diebstahl in einer Jungmädchenklasse.** (Theft in a class of girls.) *Zsch. f. Jugendk.*, 1934, **4**, 125–129.—In a technical boarding school four girls between the ages of 14 and 19 removed money and powder-box fittings from another girl's handbag, placing in it a slip on which was written "A German girl does not use powder." The character of the four girls is described. The interesting features of the case are the coherence of the group in taking responsibility for the act, and the absence of any feeling of guilt in regard to taking the powder puff since the use of it was considered wrong. Each denied taking the money. The parents were very indignant at the school for suspecting their daughters and reasoned that any girl who used powder was probably untrustworthy.—*M. Lee* (Chicago).

6154. **Matsumoto, J. [The measurements of physical growth in a girls' school.]** *Trans. Inst. Child Stud.* (Japanese), 1934, **16**, 897–934.—*R. Kuroda* (Keijo).

6155. **McCarthy, R. C. Training the adolescent.** Milwaukee: Bruce Pub. Co., 1934. Pp. 298. $2.00.—The author presents scientific facts that will aid in the training of Catholic youth, and describes the chief bodily, sensory, emotional, intellectual, and volitional changes at adolescence. The fundamental instincts of self, social feeling and sex are recognized, but self-restraint and reasonable obedience should be inculcated. If Adam and Eve had not sinned man would have dominated his sex impulse by intellect and will, and exercised it only in lawful marriage. Sex instruction should be given, usually by a priest. The writer advises on dealing with faults and delinquencies of youths, and on guiding their adolescence and their moral formation. Two chapters are devoted specifically to religious education, one to adolescent athletics, one to habits and attitudes, one to mental health, and one to the guidance of adolescents. Bibliography and index.—*E. A. Kirkpatrick* (Leominster, Mass.)

6156. **Miller, N. E. The perception of children: a genetic study employing the critical choice delayed reaction.** *J. Genet. Psychol.*, 1934, **44**, 321–339.—A combination of the method of critical trials with delayed reaction, using colored cubes, was applied to children ranging from 11 to 162 months. The dominance of cues was clearly not haphazard, but followed laws, choices being based on cues from previous situations, such as absolute position, relative position, color, etc. Even the cue *different color* was used by children of all ages, although specific color was dominant if conflicting with it in the early ages. The relative dominance of different cues was found to be a function of age, of the structure of the situation, and of the outcome of previous choices.—*J. F. Dashiell* (North Carolina).

6157. **Myers, G. C. The modern family.** New York: Greenberg, 1934. Pp. vii + 288. $2.50.—The psychology of family relationships is presented in simple terms and in practical applications. Solution is offered of the problem of how to give the child opportunity for self-expression with safety to himself and without annoyance to others. With this end in view, parents are advised how to control the child's environment; to teach "no" to the very young infant; to help him find a maximum of achievement in the greatest number of situations; and to provide the sense of security without which he can not develop independence. Although all ages from infancy upward are considered, there is especial interest in the problems of the "middle-aged" child.—*M. P. Montgomery* (Faribault, Minn.)

6158. **Newell, H. W. The psycho-dynamics of maternal rejection.** *Amer. J. Orthopsychiat.*, 1934, **4**, 387–401.—The author reports a study of 33 children who were rejected by their mothers, and suggests that this behavior was due primarily to the mother's unhappy adjustment to marriage.—*H. Peak* (Randolph-Macon).

6159. **Oka, S. [A diary of the growth of a girl.]** *Trans. Inst. Child Stud.* (Japanese), 1934, **16**, 755–810.—Description of a mother's observations regarding her child from the 70th to the 453rd day.—*R. Kuroda* (Keijo).

6160. **Pfleger, E. Soziale Verhaltensweisen einer körperlich entstellten Halbwaisen.** (Social behavior in a physically ill-favored half-orphan.) *Zsch. f. Jugendk.*, 1934, **4**, 129–132.—E, a well-developed healthy girl with heavy disfiguring features, was brought up strictly by her mother and grandmother. At school the boys made fun of her and the one whom she especially liked was indifferent to her. In general she avoided her own sex, was truculent and on the defensive with them. But she repeatedly formed a close friendship with one girl, monopolizing her society, tyrannizing over her and directing her clothes, activities and religion. Four such relationships are described, and the behavior is explained on the basis of an extreme thirst for love the normal satisfaction of which is blocked by her unattractive appearance.—*M. Lee* (Chicago).

6161. **Pratt, K. C. Generalization and specificity of the plantar response in newborn infants. The reflexogenous zone: I. Differential sensitivity and effector-segment participation according to the area of stimulation.** *J. Genet. Psychol.*, 1934, **44**, 265–300.—Detailed investigations of thirteen different foot and leg areas with tactual stimuli brought out such facts as: greatest sensitivity at the plantar areas decreased proximally along the leg; greatest specificity of response was that of the great toe while greatest generalization was to plantar stimulation along the median line; responses to stimulation on dorsal surfaces of toes and foot were not appreciably different from responses to their plantar surfaces,

thus evidencing no true "defense reflex"; two-thirds of the toe responses were of extension, while those of other limb segments were predominantly of flexion. Secondary zones of differentiation seemed demonstrated.—*J. F. Dashiell* (North Carolina).

6162. **Reisner, E. J. [Ed.] Parents and purse strings.** New York: Bureau of Publications, Teachers College, Columbia Univ., 1934. Pp. 59.—Eight reports by Lincoln School and Horace Mann School parents covering the ways in which money concepts and techniques were taught to the children of the various parents.—*M. G. Willoughby* (Clark).

6163. **Renz, C., & Renz, M. P. Big problems on little shoulders.** New York: Macmillan, 1934. Pp. x + 129. $1.50.—Episodes in the lives of children are interpreted to illustrate the principle that the failure to solve properly certain problems of childhood is most often responsible for a person's inability to find happiness or to permit those about him to be happy. The book is non-technical, narrative in style, and designed to help parents view situations which are to them trivial through the eyes of their children. Memories are the basis of a child's attitude toward the world. It is just as important to give careful attention to the memories which nourish growing minds as to the food which nourishes growing bodies. Wise parents watch for signs of "mental indigestion." —*M. P. Montgomery* (Faribault, Minn.)

6164. **Richardson, H. M. The adaptive behavior of infants in the utilization of the lever as a tool: a developmental and experimental study.** *J. Genet. Psychol.*, 1934, **44**, 352–377.—15 infants were observed monthly from the 28th to the 52nd week of age when presented with a toy on the far end of a horizontal lever, sometimes in the median plane and sometimes obliquely. Most rapid increase in success was from the 40th to the 44th weeks, when the percentage of those succeeding at least once rose from 20 to 67. Perceptual attitudes obviously improved in type between the 44th and the 52nd weeks, suggesting the operation of insight or observation of the means to success with variation in the specific motor reaction. Demonstration by the examiner contributed little. Evidences showed that motivation, emotional adjustment, and habit of meeting difficulties are important. —*J. F. Dashiell* (North Carolina).

6165. **Rodgers, F. Variation in the aesthetic environment of artistic and non-artistic children.** *Psychol. Monog.*, 1933, **45**, No. 1, 95–107.—Better environments surrounded the artistically competent children, and the differences in environments were pronounced in the children's books and interest shown in them; but environment as herein studied was not a vital factor in the explanation of variation in artistic competence of children.—*H. Cason* (Wisconsin).

6166. **Rubinow, O., & Frankl, L. Die erste Dingauffassung beim Säugling.** (The infant's first perception of an object.) *Zsch. f. Psychol.*, 1934, **133**, 1–71.—In the course of his development from four to ten months the infant reacts to the feeding situation on the basis of increasingly specific and essential criteria. There are five graded reactions of recognition, dependent on the subject's developmental age, namely to: the sudden approach of any object, the approach of a pointed object, the nipple, the nipple and a white fluid, a white fluid. Preceding these are situations more remotely connected with feeding. The objectivity of the identification increases constantly and becomes less dependent on the child's condition of satiation. Not until the nipple as such is recognized can we speak of identification of an object independent of the activity performed with it. Most significant is that this development is not based on trial-and-error experience but is a product of the infant's maturation.—*H. Beaumont* (Kentucky).

6167. **Seki, H. [The religious consciousness of deaf and mute children.]** *Trans. Inst. Child Stud.* (Japanese), 1934, **16**, 935–966.—The religious consciousness of deaf and mute children is very similar to that of normal children. The slight difference seems to come from deficiency in intelligence in the former. —*R. Kuroda* (Keijo).

6168. **Sherbon, F. B. The child; his origin, development and care.** New York: McGraw-Hill, 1934. Pp. xix + 707. $3.50.—This is a college textbook for classes in child development and care, and will also serve as a reference work for lay readers of college caliber. The author has synthesized facts from the appropriate sciences (biochemistry, biology, genetics, psychology, and education) in terms of the phenomena of childhood. Her philosophy is organismic; she views the child as a behaving, integrated organism. Three divisions comprise the text: "Before the Child" has chapters covering such topics as the mechanism of the organization of life, heredity, evolution and anatomy of reproduction, fertility, glands of internal secretion, and pregnancy; "Enter the Child" discusses birth, puerperium, food, sleep, posture, care of head, and health during the baby's first year; and "Development, Behavior and Training" takes up the how and why of behavior, its neural bases, behavior levels of preschool children, learning, moral training, problems of childhood, and the techniques for observing children. References to current works are found in the footnotes. The book is illustrated with pictures, poetry, scientific illustrations and tables of data. It is complete with preface, table of contents, appendices, glossary, and index.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

6169. **Shimidu, E. [On the development of immediate memory and perception of children.]** *Trans. Inst. Child Stud.* (Japanese), 1934, **16**, 723–740.—While immediate memory is very weak in younger children when tested with the reproduction experiment (they were required to reproduce by drawing what they perceived), it is not so weak but comes up to nearly the same level as that of higher school ages when tested with the recognition experiment. The fact holds substantially true in kindergarten children. As regards sex difference boys are superior to girls in both forms of memory. The constancy of perceived figures with respect to their forms was not proved;

they depend to a certain extent on the position from which they are seen.—*R. Kuroda* (Keijo).

6170. **Stoddard, G. D., & Wellman, B. L. Child psychology.** New York: Macmillan, 1934. Pp. xii + 419. $2.50.—A text in child psychology written entirely from the standpoint of careful examination, review, and evaluation of experimental data, this work can be considered a source book for the major experiments in the field both in America and abroad. Because the authors have been allied with an experimental center they have paid especial attention to the various methods of research, presenting both the advantages and the limitations of each method in detail, including the observation, rating, and clinical methods, experimental method, tests, psychoanalysis, questionnaires and questioning method, and introspection. Topics treated include motor development, sensory discrimination, concepts and thinking, language, intelligence, learning; social behavior, play, artistic capacity; emotional patterns, personality aberrations, behavior aberrations, character, and the meaning of personality. Each topic is presented genetically, by means of experimental data, and the comments of the authors serve to synthesize the material into a readable whole.—*H. Marshall* (Fels Fund).

6171. **Strong, E. K., Jr. Permanence of vocational interests.** *J. Educ. Psychol.*, 1934, **25**, 336–344.—"When the interests of college seniors are expressed in terms of their approximation to the interests of adult men in various occupations it appears that the rank order of such interests will correlate .84 with the rank order of their interests five years later. At the same time, the scores obtained at twenty-seven years of age will average .25 of a rating higher than at twenty-two years of age. This change is due largely if not entirely to the fact that interests change with age and consequently the interests of twenty-seven-year-old men will approximate more closely the interests of forty-year-old men than will the interests of twenty-two-year-old men. Aside from this effect of increasing maturity, there is remarkable permanence of interests with the age range of twenty-two to twenty-seven years of age whether measured in terms of rank order or in terms of actual size of score. Moreover, increasing maturity has actually a small effect, for eighty-five per cent of all ratings will agree within one rating of each other on both occasions."—*J. A. McGeoch* (Missouri).

6172. **Thom, D. A. Guiding the adolescent.** *U. S. Child. Bur. Pub.*, 1933, No. 225. Pp. 94.—A manual written for parents on the developmental and behavioral problems of adolescence.—*C. M. Louttit* (Indiana).

6173. **Thomas, F. Some sociological principles underlying child development.** *Publ. Amer. Sociol. Soc.*, 1934, **28**, 117–118.—Abstract.—*G. Barnes* (Clark).

6174. **Tiebout, C. The psychophysical functions differentiating artistically superior from artistically inferior children.** *Psychol. Monog.*, 1933, **45**, No. 1, 108–133.—The purpose of this investigation was to determine experimentally the psychological traits in which superior development characterized the artistically superior as opposed to the artistically inferior child. The subjects were 11 artistically superior and 12 artistically inferior children ranging in age from five to ten years. The subjects were selected on the basis of ratings and the evaluation of their art products. Test situations were used that would stimulate the functioning of the various sensory, motor, and higher mental processes which analysis indicated to be involved in artistic expression. A special series of laboratory measures of completeness of observation and memory using a cinematographic technique was devised, and also tests of form discrimination and recognition of pictorial incongruities. Artistically superior children as compared with the artistically inferior showed superior performance in completeness and accuracy of observation, recall of the observed materials after intervals of ten days and six months, uniqueness in imaginal construction of objects and situations from meaningless forms, originality as expressed in line drawings, form discrimination or apprehension of the main form of objects, and feature discrimination involving observation and comparison to determine variant items in a series of visual stimuli. The results are in general harmony with the views of 30 artists of standing whose opinions were obtained.—*H. Cason* (Wisconsin).

6175. **Tsumura, T. [A differential study of religious consciousness of children.]** *Trans. Inst. Child Stud.* (Japanese), 1934, **16**, 967–990.—Using the questionary method, the author investigated the subjective side of religious consciousness in children 9 to 13 years old, including the object and the motive of belief and the effect of prayer, together with its objective side, that is, the effect of surrounding life phenomena, formal elements of established religions, and natural physical environments.—*R. Kuroda* (Keijo).

6176. **Valentiner, T. 23. Jahresbericht des Bremer Instituts für Jugendkunde.** (Twenty-third annual report of the Bremen Institute for Juvenile Study.) *Zsch. f. angew. Psychol.*, 1934, **46**, 250–253.—A review of a number of studies from the Bremen Institute dealing largely with high school entrance examinations and vocational tests.—*K. F. Muenzinger* (Colorado).

6177. **Vertes, J. O. Nervöse Kinder.** (Neurotic children.) Paderborn: Schöningh, 1933. Pp. 122. RM. 14.—Neurosis, as it manifests itself in childhood, is very different from the forms it shows in adults, because the nervous system of the child has not yet reached its anatomical, physiological, and psychological development. Two types of neurosis have to be distinguished: the innate neurosis and the acquired neurasthenia which is the consequence of overstressed affectivity. Among both types we find (in very much the same percentage) superior and inferior pupils but scarcely ever the average mental capacity. There are two types of neurotic children amongst the gifted and the non-gifted: those who are quick and abrupt in all their actions and those who have scarcely any initiative at all. Blood tests seem to show a difference between the two types. Vertes

comes to the conclusion that, although a psychopathic constitution cannot be eliminated, the neurotic child can be taught to adjust itself to its environments in spite of its abnormalities. Suggestive treatment is effective only with hysterical children; neurasthenics cannot be influenced by it. As neurotics cannot be educated in an ordinary school, teachers ought to be psychologically trained enough to recognize a neurotic child. About 1% of all school children must be recognized as manifestly neurotic, boys and girls in almost equal numbers. From the gifted group of these neurotics have emerged some of the most eminent men and women, who have given to their contemporaries new ideas and new inventions. The adequate education of these neurotic children is therefore of the greatest importance.—*L. H. Ernst* (London).

6178. **Walton, W. E. The sensitivity of children and adults to color harmony.** *Psychol. Monog.*, 1933, **45,** No. 1, 51–62.—Approximately 600 children and adults were given a test designed to measure sensitivity to color harmony. A statistical study was made of the influence of age, intelligence, sex, isolated color preferences, and time spent on the test. Sensitivity to color harmony was found in children as early as the fourth year, but averages for the groups were not above a chance score until after the eighth year. There was a definite relationship between age and the score made by the group. By the twelfth year children had not reached the adult ability, although a leveling-off occurred. Intelligence, single color preferences, and time spent on the test did not appreciably affect the score.—*H. Cason* (Wisconsin).

6179. **Weber, A. Worthalten, auch Kindern gegenüber.** (Keep your promises, even to children.) *Kleine Kinder*, 1934, No. 5.—By not keeping their promises parents can easily lose the confidence of their children.—*E. Einenkel* (Leipzig).

6180. **Weiss, L. A. An experimental investigation of certain factors involved in the preschool child's compliance with commands.** *Univ. Iowa Stud.: Stud. Child Welfare*, 1934, **9,** No. 3, 127–157.—77 preschool children were given eight commands under three different experimental situations. Age differences and differences between experimental situations were found. These were less evident in time taken for response than in the patterns of behavior manifested. Obedience was found to be complex. Other individual factors were as significant as age, sex or mental status.—*B. Wellman* (Iowa).

6181. **Whorley, K. S. An experimental investigation of the sensitivity of children to compositional unity.** *Psychol. Monog.*, 1933, **45,** No. 1, 26–45.—Tests were developed which measured the sensitivity of pre-school children to compositional unity as evidenced by their ability to arrange three-dimensional objects in a unified group. Most of the children showed little or no consistent appreciation of unity in arrangement, but a few were sensitive to unity in a very high degree. There was no apparent relation between sensitivity to unity and mental age.—*H. Cason* (Wisconsin).

6182. **Williams, E. J. A technique for testing color harmony sensitivity in young children.** *Psychol. Monog.*, 1933, **45,** No. 1, 46–50.—A method was devised for testing the ability of children to recognize color harmony.—*H. Cason* (Wisconsin).

6183. **Williams, H. M. Musical guidance of young children.** *Child Welfare Pamph.*, No. 29. *Bull. State Univ. Iowa*, 1933, n. s. No. 707. Pp. 15.—The fundamental training in music at the preschool level is conceived to be the development of musical understanding. Individual differences in musical development are observable in children at this level. An achievement chart for the ages 18 to 54 months is presented, together with suggested musical activities and principles of guidance.—*B. Wellman* (Iowa).

6184. **Wiltshire, H. Informational content of children in the first four grades.** *Psychol. Clin.*, 1933, **22,** 198–207.—The first twenty questions of the Lowe and Shimberg Scaled Information Test, Form A, were given to 400 school children in the first four grades. Ability to answer the questions was found to increase by grade and by chronological age. Urban children showed slightly greater ability than rural ones, and boys were slightly better than girls, though both of these differences are minimized by overlapping. —*J. T. Metcalf* (Vermont).

[See also abstracts 5777, 5778, 5831, 5854, 5876, 5932, 5957, 5958, 5973, 5983, 5984, 5985, 5997, 6025, 6041, 6138.]

PSYCHOLOGICAL MONOGRAPHS

Binocular and Monocular Relations in Foveal Dark Adaptation

By T. W. Cook

Acadia University

A knowledge of the nature of dark adaptation is fundamental for a comprehensive theory of vision. Both psychologists and physiologists will find the results of the author's research in this field at Yale University of great value.

Monograph No. 202 86 pp. Price $1.25

Brain Fields and the Learning Process

By J. A. Gengerelli

University of California at Los Angeles

The author has outlined a neural basis for the learning process. He has been particularly concerned with the conditioned response in learning, and has given an explanation in dynamic terms, similar to those used by the Gestalt School.

Monograph No. 203 115 pp. Price $1.50

Practice and Variability

A Study in Psychological Method

By Anne Anastasi

Barnard College

The monograph is concerned chiefly with fundamental methodological issues involved in practice and variability. Especial attention is given to the mathematical treatment of the results of tests which were given to a thousand college students of both sexes.

Monograph No. 204 55 pp. Price $.75

Serial Reactions Considered as Conditioned Reactions

By William M. Lepley

Pennsylvania State College

The author describes a series of experiments which were designed to test the application of the principle of the conditioned reflex to his theory of serial learning and forgetting. The results concern the nature of remote associations and the function of practice and age in relation to learning.

Monograph No. 205 56 pp. Price $.75

PSYCHOLOGICAL REVIEW COMPANY

Princeton, New Jersey

DICTIONARY OF PSYCHOLOGY

prepared by many collaborators under the editorship of

HOWARD C. WARREN

THIS important book achieves in psychology that uniformity in terminology essential to real service. It covers all branches of psychology, as well as many terms in related fields, such as education, biology, physics, chemistry, and mathematics, and includes definitions of 10,000 terms used in psychological literature. The material has been prepared in collaboration with over 100 well-known American psychologists, experts in various departments in the science.

$4.50 postpaid.

HOUGHTON MIFFLIN CO.

Boston New York Chicago Dallas Atlanta San Francisco

BIOLOGICAL ABSTRACTS

Under the auspices of the Union of American Biological Societies, with the coöperation of biologists generally.

1 publishes concise and intelligent abstracts contributed by thousands of specialists from every field of theoretical and applied biology;

2 searches over 5000 journals representing every civilized language, abstracts all pertinent matter in English but gives the citation in the original language;

3 furnishes annually: (a) an author index; (b) an extensive alphabetic subject index; (c) a complete systematic index providing an adequate approach to taxonomic (and much non-taxonomic) information on a group basis;

4 charges for this service $15.00 per annual volume with a special rate of $9.00 to individuals who pay for the subscription from their private purse.

Orders and correspondence should be addressed to

BIOLOGICAL ABSTRACTS

UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA., U. S. A.

THE PSYCHOLOGICAL EXCHANGE

(The professional journal of psychologists)

11 EAST 125TH STREET
NEW YORK CITY

Published bi-monthly
Subscription $3.00 annually

FUNCTIONS

I Research. The Psychological Exchange lists titles of research under way, to enable inter-communication of those interested in similar problems, and to secure permanent library reference for unpublished material. It also maintains a Research Lending Library in which psychologists are invited to deposit typed copies of unpublished research for general circulation.

II Placement Information Service. The Psychological Exchange provides a clearing house for those in need of psychologists and psychologists who are available for employment. Keyed notices are printed in the journal, and circulars issued regarding opportunities that arise. This service is limited to subscribers.

III Articles. The Psychological Exchange prints articles regarding psychology as a profession. Studies of the duties of the psychologist in school, court, prison, mental hospital, personnel work, vocational guidance, and industry will appear. A forum is maintained for the discussion of professional problems.

IV News. The Psychological Exchange prints news of the activities of psychologists all over the country. Contributions are invited.

Vol. VIII, No. 13 **Index Number** December, 1934

PSYCHOLOGICAL ABSTRACTS

EDITED BY

WALTER S. HUNTER, CLARK UNIVERSITY
RAYMOND R. WILLOUGHBY (*Associate Editor*)
CLARK UNIVERSITY

WITH THE COÖPERATION OF

F. C. BARTLETT, CAMBRIDGE UNIVERSITY
ED. CLAPARÈDE, UNIVERSITY OF GENEVA
L. E. MIRA, UNIVERSITY OF BARCELONA
R. NIHARD, UNIVERSITY OF LIÉGE
V. OSIPOV, LENINGRAD
H. PIÉRON, SORBONNE
M. PONZO, UNIVERSITY OF TURIN
P. RANSCHBURG, HUNGARIAN UNIVERSITY
M. L. REYMERT, MOOSEHEART, ILL.
W. WIRTH, UNIVERSITY OF LEIPZIG

CONTENTS

Author Index.....693–707

Subject Index.....708–746

Additional Bibliographic Sources..... 747

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY

THE AMERICAN PSYCHOLOGICAL ASSOCIATION

44 Portland Street, Worcester, Massachusetts

Editorial Office: CLARK UNIVERSITY, WORCESTER, MASS.

Business Offices: 44 PORTLAND STREET, WORCESTER, MASS., AND ENO HALL, PRINCETON, N. J.

Send changes of address to: Psychological Abstracts, Eno Hall, Princeton, N. J.

Subscription, $6.00 per year; Foreign, $6.25

Entered as second-class matter June 6, 1933, at the post-office at Worcester, Mass., under the Act of March 3, 1879

PSYCHOLOGICAL ABSTRACTS

EDITED BY

WALTER S. HUNTER, CLARK UNIVERSITY
RAYMOND R. WILLOUGHBY (*Associate Editor*)
CLARK UNIVERSITY

WITH THE COÖPERATION OF

F. C. BARTLETT, CAMBRIDGE UNIVERSITY
ED. CLAPARÈDE, UNIVERSITY OF GENEVA
L. E. MIRA, UNIVERSITY OF BARCELONA
R. NIHARD, UNIVERSITY OF LIÉGE
V. OSIPOV, LENINGRAD
H. PIÉRON, SORBONNE
M. PONZO, UNIVERSITY OF TURIN
P. RANSCHBURG, HUNGARIAN UNIVERSITY
M. L. REYMERT, MOOSEHEART, ILL.
W. WIRTH, UNIVERSITY OF LEIPZIG

VOLUME VIII
1934

PUBLISHED MONTHLY, WITH TWO ISSUES DURING DECEMBER, BY
THE AMERICAN PSYCHOLOGICAL ASSOCIATION
44 PORTLAND STREET, WORCESTER, MASSACHUSETTS

Business Offices: 44 PORTLAND STREET, WORCESTER, MASS., AND ENO HALL, PRINCETON, N. J.

THE COMMONWEALTH PRESS WORCESTER MASS.

CONTENTS

The numbers refer to abstracts

General
1–38
749–800
1414–1443
1895–1929
2385–2413
2846–2874
3360–3385
3880–3902
4337–4356
4825–4859
5329–5353
5730–5761

Sensation and Perception
39–82
801–883
1444–1513
1930–1970
2414–2441
2875–2921
3386–3421
3903–3950
4357–4396
4860–4910
5354–5401
5762–5815

Feeling and Emotion
83–85
884–892
1514–1519
1971–1972
2442–2443
2922–2929
3422
3951–3958
4397–4399
4911–4912
5402–5404
5816–5819

Attention, Memory and Thought
86–102
893–926
1520–1527
1973–1978
2444–2458
2930–2947
3423–3433
3959–3975
4400–4407
4913–4920
5405–5415
5820

Nervous System
103–127
927–953
1528–1554
1979–1988
2459–2475
2948–2960
3434–3444
3976–3991
4408–4433
4921–4930
5416–5428
5821–5849

Motor Phenomena and Action
128–185
954–1013
1555–1589
1989–2015
2476–2509
2961–3017
3445–3478
3992–4025
4434–4482
4931–4958
5429–5453
5850–5883

Plant and Animal Behavior
186–300
1014–1073
1590–1639
2016–2068
2510–2547
3018–3080
3479–3528
4026–4057
4483–4545
4959–4981
5454–5469
5884–5904

Evolution and Heredity
301–319
1074–1082
1640–1650
2069–2074
2548–2557
3081–3096
3529–3548
4058–4061
4546–4558
4982–4993
5470–5474
5905–5909

Special Mental Conditions
320–363
1083–1099
1651–1675
2075–2103
2588–2628
3087–3105
3549–3577
4062–4086
4559–4578
4994–5030
5475–5494
5910–5938

Nervous and Mental Disorders
364–437
1100–1170
1676–1713
2104–2144
2588–2628
3106–3132
3578–3642
4087–4142
4579–4621
5031–5083
5495–5570
5936–5987

Personality and Character
438–465
1171–1197
1714–1732
2145–2158
2629–2647
3133–3155
3643–3665
4143–4167
4622–4635
5084–5106
5571–5582
5988–6006

Social Functions of the Individual
466–541
1198–1268
1733–1794
2159–2216
2648–2720
3156–3219
3666–3735
4168–4220
4636–4691
5107–5186
5583–5646
6007–6059

Industrial and Personnel Problems
542–576
1269–1290
1795–1802
2217–2253
2721–2748
3220–3250
3736–3773
4221–4270
4692–4728
5187–5215
5647–5650
6060–6084

Educational Psychology
577–639
1291–1349
1803–1837
2254–2298
2749–2798
3251–3303
3774–3806
4271–4311
4729–4765
5216–5258
5651–5672
6085–6130

Biometry and Statistics
640–650
1350–1358
1838–1843
2299–2312
2799–2805
3304
3807–3816
4312–4316
4766–4782
5259–5265
5673–5682
6131–6135

Mental Tests
651–667
1359–1377
1844–1851
2313–2325
2806–2818
3305–3312
3817–3830
4317–4328
4783–4799
5266–5273
5683–5697
6136–6140

Childhood and Adolescence
668–748
1378–1413
1852–1894
2326–2384
2819–2845
3313–3359
3831–3879
4329–4336
4800–4824
5274–5328
5698–5729
6141–6184

PSYCHOLOGICAL ABSTRACTS

VOL. VIII, No. 13. DECEMBER, 1934

AUTHOR INDEX

Aalit, P. W., 4893
Aall, A., 6141
Abbot, E. S., 1100
Abe, M., 3313
Abe, N., 1600, 3036
Abe, S., 801, 2414
Abel, J. F., 577
Abel, L. B., 6142
Abel, T. M., 802, 5354
Abelson, H. H., 578
Abély, P., 3106, 3107, 5495
Abély, X., 3106, 3107, 5495
Abernethy, J. R., 2299
Abrams, M. H., 5910
Accardi, —, 1930
Ach, N., 86
Achard, H. J., 5939
Achelis, J., 2459
Acheson, E. M., 466
Achille-Delmas, F., 1733
Achilles, P. S., 749, 2217, 4221
Acker, J., 4271
Ackerly, S., 5274
Acqua, M., 884
Adams, D. K., 3479, 5454
Adams, G., 2846
Adams, H. F., 640, 651
Adams, J. E., 4272
Adams, R., 5583
Addison, W. H. F., 1979
Adie, W. J., 5762
Adler, A., 320, 364, 668, 1198, 1714, 1895, 4622
Adler, F. H., 5763
Adler, G., 5475
Adrian, E. D., 103, 128, 927, 1528, 5821
Agar, W. E., 186
Ai, W., 2648
Aikens, H. A., 1100
Akishige, Y., 2875
Alberti, J. C., 1
Alberti, J. L., 2, 3, 25, 87, 104, 129, 138, 365, 467, 468, 469
Aldama, J. M., 2104
Aldrich, V. C., 3880
Alexander, A., 2558
Aleck, A. A., 6113
Alexander, F., 321
Alexander, H. G., 1014
Alexander, R., 2159
Alexander, W. P., 3305
Alexandrov, I. S., 4921
Alier, J. J., 1584
Aliquo-Mazzei, —, 5764
Allen, E. B., 2629
Allen, E. P., 2749
Allen, F. H., 5031
Allen, G. E., 2254
Allen, J. F., 1931
Allen, R. M., 5434
Allendy, R., 1651, 1715
Allers, R., 4, 1819, 4143
Alles, A., 750
Allison, J. B., 206, 5884
Allison, L. W., 4062
Allport, F. H., 2160, 5584, 6007
Allport, G. W., 4144, 1718, 3138
Almack, J. C., 2750, 3774
Almkvist, J., 4636
Alpers, B. J., 5416
Altavilla, E., 2161
Altenburger, H., 954, 5822
Altherr-Bachus, M., 5032
Amaldi, P., 3831
American Educational Research Association, 3251, 4729
Amitin-Shapiro, Z. L., 5107
Amram, A., 4087
Anastasi, A., 3445, 5683, 5850
Andersen, K. T., 187
Anderson, A. C., 737
Anderson, A. L., 188
Anderson, F. N., 1074
Anderson, H. H., 2326, 3775, 4800, 6085
Anderson, I., 88, 2476, 2477, 4400
Anderson, J., 4825
Anderson, J. E., 1896, 3832
Anderson, R. G., 2255
Anderson, R. N., 4692
Anderson, S. E., 5911
Anderson, V. V., 1291
Andre, M., 1996
André, Y., 2117
Andrew, D. M., 5187
Andrus, E. P., 2751
Angell, R. C., 579, 5585
Angulo y González, A. W., 1015, 4483
Angyal, A., 1499, 1500
Annis, A. D., 4168
[Anon.], 669, 1292, 1444, 1555, 1590, 1676, 1734, 1795, 1897, 1898, 1899, 2105, 2162, 2218, 2385, 2548, 2588, 2847, 2876, 3220, 3360, 3666, 3736, 3881, 4169, 4222, 4637, 4638, 4693, 4826, 5033, 5034, 5108, 5109, 5275, 5276, 5586, 5730, 5940, 6086
Antoni, N., 4636
Antonovitch, S., 5424
Aoki, S., 1016, 4026
Aprile, V., 3578
Arbonsoff, V., 1973
Arbusov, V., 4223
Argow, W. W., 4639
Arkhangelskii, V. M., 955
Armstrong, C. P., 470, 1199, 2163, 5587
Armstrong, E. L., 4860
Arnaoutow, G. D., 2219
Arndt, W., 3737, 3738
Arnold, K., 4982
Arnold, W., 5765
Aronwitsch, G., 5885
Aronson, L., 105, 5844
Arrington, R. E., 529
Arslan, K., 4357
Arvola, A., 2471
Asch, S. E., 2961, 5999
Aschaffenburg, G., 2649
Aschner, B., 366
Ash, W. S., 6060
Ashby, W. R., 1101, 3579
Asher, E. J., 4273
Asmussen, E., 4931
Asnaourow, F., 4580
Asperger, H., 5726
Assagioli, R., 2164
Ast, W., 4694
Atwell, C. R., 1844
Atwood, B. S., 1735
Atzler, M., 189
Auel, C. B., 6061
Auerbach, H., 322
Auersperg, A., 5823
Auger, D., 2460
Aulich, W., 3133
Austin, O. L., 5166
Aveling, F., 1414
Avery, G. T., 2843
Awaji, Y., 1171
Ayers, G. H., 3252
Azoy, A., 1796

Babb, W. W. M., 641
Babcock, H., 367, 5571
Babcock, M. E., 438
Babsky, E., 130, 4434
Bachelard, P. M., 5266
Bacq, Z. M., 1980, 4408
Badley, J. H., 5110
Baege, —, 5277
Baernstein, H. D., 1998
Baganz-Lehmann, M., 3643
Bagby, E., 439
Bagh, K. V., 77
Bahn, C. A., 1445
Bahnsen, J., 440, 4337
Baier, L. J., 190
Bailey, E. W., 2256
Bailey, M. W., 670
Bain, W. A., 5824
Bain, W. E., 4730
Bajandurow, B. I., 3018, 3019
Baker, G., 5470
Baker, J. S., 6062
Baker, L., 1002
Bakhtiarov, V., 4579
Bakke, E. W., 3743
Balchin, N. M., 2721, 2722, 2723, 4695
Baldrian, K., 3386
Baldrian, R., 2257
Baliasnikowa, N. J., 956
Balietti, L., 1102
Balken, E. R., 2327
Ball, J., 3020
Ballachey, E. L., 2510, 4484
Balvalkar, S. K., 5
Balz, A. G. A., 751
Bamford, C. B., 4088
Bancroft, W. D., 2075, 2076, 3976
Banissoni, F., 1269, 3446, 4640
Banister, H., 5766
Banu, G., 2819
Baonville, H., 5496
Baquis, F., 39
Barach, A., 4170
Barach, A. L., 993, 2559, 5059
Baranova, F., 1200, 1201, 1378
Baranowski, P., 2998, 3470
Bard, P., 2511, 4911, 5428, 5816
Barden, H., 3387
Barglowski, D., 5988
Bargues, R., 3317
Barilari, M. J., 4580
Barke, E. M., 1736
Barker, M. B., 4171
Barker, P. S., 1589
Barkley, K. L., 1100
Barnes, T. C., 191, 3021, 4027
Barnett, J. H., 1716
Barnhurst, A. L., 3878
Baron, P., 1446
Barraquer, L., 1529
Barrera, S. E., 5787
Barrère, —, 5514
Barreto, A. P., 1359
Barrett, C., 3882
Barris, R. W., 4414
Barry, H., Jr., 3903
Bartelme, P., 2807
Barth, E. E., 5783
Bartlett, F. C., 1932, 2421
Bartlett, M. A., 2741
Bartley, S. H., 799, 1474, 4028
Baruk, H., 3580
Barychnikov, I., 3361, 4224
Bass, M. J., 2478
Bassett, C., 2589
Basso, L., 1415
Batalla, M. B., 4801
Baten, W. D. 1350, 4766
Bathelt, K., 2165
Bathurst, J. E., 1379, 6063
Baudard, A., 5557
Bauman, E. D., 3667
Baumgarten, F., 1380, 2313, 2386, 3362, 4225, 5084
Baur, L., 752
Bayer, C. G. F. H., 192
Bayer, E., 40
Bayer, L., 3904
Bayley, N., 1381
Baylisa, Z. B., 4274
Bayroff, A. G., 1017
Bazett, H. C., 803, 804, 1933, 5416
Bazison, F., 5497
Beacher, L. L., 4861
Beam, L., 4649
Beaman, F. N., 435
Beams, J. W., 3363
Bean, C. H., 1202
Bean, J. W., 1981
Beasley, W. C., 671, 1382
Beauchamp, R. S. A., 3480
Beaudouin, H., 4093
Beck, A 4271
Beck, A. G., 572
Beck, D. J., 4089
Beck, L. F., 957, 1065
Beck, S. J., 1172, 2608, 4623, 5085, 5731
Becker, F., 1416
Becker, J., 672
Becker, M., 5146
Becker, R., 193
Beckham, A. S., 2650, 5588
Beckman, R. O., 1270
Bedford, T., 2220
Bednara H. K., 4435
Beebe, E. L., 4802
Beers, F. S., 3301
Beh, Y. T., 2423
Behanan, K. T., 4458
Behn, S., 3156
Behr, C., 2962
Beitel, R. J., Jr., 5355
Békésy, G. v., 3388, 4358
Belaval, J. Y., 2077
Beley, A. P. L., 2651, 3111, 5551
Belknap, G. N., 5111
Bell, A. M., 4624
Bell, E. H., 3157
Bell, R., 2711, 2806
Bellelli, C., 958
Bellerby, C. W., 3481
Bellis, C. J., 1622
Bellissi, I., 2016
Belonoschkin, B., 2415
Bellows, R. M. 3951
Beltran, J., 1271
Beltran, R., 3549
Belyavskaya, E. A., 998
Bender, L., 1103, 2078, 3581, 5498, 5499, 5767
Bendix, B., 5851
Bendrat, T. A., 106
Benedek, I., 753
Benedek, T., 4994
Benedetti, P., 1075
Benedict, C. G., 131
Benedict, F. G., 131, 1556, 4076, 5429
Benedict R., 2652, 3158, 5589, 6008

Ben El Mouffok Abderrahman, 2653
Beniuc, M., 4029, 4485
Beniya, S., 2963
Benjamins, C. E., 3447, 4932
Bennett, C. C., 485, 601
Bennett, E., 4158
Bennett, E. A., 5035
Benon, R., 1852, 2590, 3668
Benson, S. B., 4523
Bentley, J. E., 1360
Bentley, M., 6, 1417
Berens, C., 1447, 1797
Berg, L., 441
Berg, R., 1934
Bergen, G. L., 5647
Berger, C., 2877
Berger, G., 2560
Berger, H., 5825
Bergfeld, E., 754
Bergier, E., 2079, 3098, 4559, 4567, 5912
Bergman, R., 1203
Beritoff, I., 2387
Beritoff, J. S., 132
Berk, A., 2145, 2146, 2166
Berkovich, L., 3037
Berkwitz, N. J., 167, 3992
Berlov, W., 1989
Berman, I. R., 471
Bernabei, M., 1293
Bernard, A., 1575
Bernard, J., 4641, 5590
Bernardi, R., 1104
Bernays, A., 4359
Berné, A., 1418
Berne, E. Van C., 5278
Berner, B., 3644
Bernhardt, K. S., 2512
Bernreuter, R. G., 2630, 3134, 3135, 5989
Bernstein, A. L., 5430
Bernstein, F., 642
Bernstein, N., 3883
Bernstorff, H. v., 3905
Berrien, F. K., 2561
Berry, G., 3389
Berry, R. J. A., 928, 5036, 5500
Bersot, H., 2591
Bertholf, L. M., 1018, 4486
Bertolani Del Rio, M., 3582, 3583
Best, E. L., 542
Best, F., 41
Best, H., 4862
Besterman, T., 2080, 2081, 4030
Besuch, G., 5037
Beth, K., 1737
Beth, M., 1419
Bethe, A., 2479, 5886, 5887
Betsholtz, T., 937
Betts, E. A., 5216
Betts, E. W., 4933
Betts, G. H., 3253, 4731
Betzendahl, W., 368
Beutler, R., 4487
Bevelander, G., 5888
Bevis, W. M., 1105
Beyle, H. C., 1738, 1739, 1740
Beyne, J., 1448
Beznák, A. v., 3993
Bhatia, B. B., 107
Bibring-Lehner, G., 3550
Bickerton, J. M., 1935
Bidon, G., 3448
Biegel, R. A., 4696
Biegeleisen, B., 543, 4697
Biehl, K., 5676
Bier, A., 363
Bierens de Haan, J. A., 194, 2017, 3022, 3669, 3833, 4031, 4488
Bikchentai, —, 3817
Bilancioni, G., 805, 5431
Billett, R. D., 2258
Billings, M. L., 3959
Bills, A. G., 1204, 4827, 5112
Bills, M. A., 3739
Binder, H., 442, 3645, 3818
Binder, R. M., 3834
Binet, A., 2922
Binet, L., 1591
Bing, R., 1677
Bingham, W. V., 3221, 3222, 3740
Bird, C., 471, 2221, 2513
Bird, G. E., 1100, 1383
Birge, R. T., 5674
Birkinshaw, M., 4262
Birnbaum, F., 2328, 4732
Birnbaum, K., 443, 4090
Bischler, W., 2820, 4560
Bishop, E. L., 2256
Bishop, G. H., 929, 1530, 5417
Bisov, S. A., 1272
Bissonnette, T. W. H., 195
Bjerre, P., 4581
Blacher, C., 4995
Blachowski, W., 4226
Black, D., 1640
Black, P. T., 3361
Blackhurst, J. H., 2259
Blackman, B., 673
Blair, E. A., 930, 1531, 1539
Blair, H. A., 5826
Blake, W. H., 133
Blan, L., 2592
Blanchard, P., 706
Blank, G., 4934, 5188
Blankart, L., 5501
Blankenagel, F., 2018
Blankfort, G., 926
Blatz, W. E., 706
Blaustein, L., 1205
Bleidt, —, 2654
Blender, E., 2388
Bliss, C. I., 4312
Block, H., 5999
Block, H. A., 5605
Blondel, C., 1741
Blonsky, P., 674
Bloodworth, J. A., 472
Blum, H. F., 1019, 2019
Blum, K., 3584
Blumensohn, J., 3159
Blumer, H., 1206, 1207
Boardman, R. K., 3254
Bobertag, O., 544, 5086, 5651
Bock, W., 4983
Boda, I., 755, 1173
Bodine, J. H., 196
Boege, K., 3835
Bogardus, E. S., 1742, 3136
Bogen, D., 1208
Bogen, E., 4561
Boháč, A., 5905
Böhme, A., 4642
Boisen, A. T., 5502
Bologa, L., 2409, 2655
Bolton, E. B., 3670
Bolton, J. S., 931
Boltunov, A. P., 580
Boltz, O. H., 5038
Bonain, A., 1449
Bonaparte, M., 1652, 1653, 3087, 3137, 5591
Bonaventura, E., 3390, 4828
Bond, F. B., 1654, 3551, 5193
Bond, G., 2711
Bond, H. M., 5141
Boney, C. DeW., 2260
Bonhoeffer, K., 5039
Bonhomme, J., 4091
Bonhour, A., 4582
Bonnardel, R., 1990, 2222
Bonnerjea, B., 5113
Bonnet, V., 5875
Bonte, T., 4913
Bontrager, O. R., 5217
Bonvallet, M., 1557, 1605
Boodin, J. E., 1209
Booker, I. A., 581
Bookheim, A., 3263
Borde, M., 2631
Bordi, P., 3977
Borel, A., 1655, 5592
Borel, J. A., 369
Boring, E. G., 5358
Bornstein, A., 3434
Bornstein, B., 1936
Bornstein, S., 3088, 3552
Borovski, V. M., 4436
Borowiecki, S., 4562, 4583, 4625
Borri, C., 3023
Borsarelli, F., 1558
Bosch, G., 2106
Bose, G., 756
Bose, J. C., 197
Bostock, J., 7
Bostroem, A., 5503
Bott, H. M., 1592, 5698
Bottalo Plebani, L., 1294
Bottazzi, F., 2964
Bottelier, H. P., 2514
Botti, L., 2878, 3089
Boucknaert, J., 4445, 5860, 5861, 5862
Bourdon, B., 42
Bourgignon, G., 1450, 1532
Bourjade, J., 1803
Bousfield, M. B., 3671
Bousfield, W. A., 3903, 5455
Boven, W., 4172
Bowden, A. O., 4173, 5593, 5652
Bowden, J. L., 1361
Bowen, R. E., 806, 2020
Bowles, G. T., 582
Bowman, K. M., 4584
Boyd, P. P., 2930
Boynton, P. L., 652, 675, 4803
Bozler, E., 4437
Braatöy, T., 3585, 5040, 5041
Bracken, H. v., 3529, 5984
Brackfeld, O., 4643
Brackett, C. W., 1853
Braddy, N., 1804
Bragman, L. J., 2147
Brailovski, E., 4227, 4228
Braly, K., 3181
Braly, K. W., 43
Bramkamp, J. D., 584
Brand, E., 2923, 5059
Brand, H., 4959
Brandenburg, G. C., 623
Brandt, F., 4352
Braun, E., 2107
Braunshausen, N., 2167, 5144
Bray, C. W., 1070, 1637
Bray, G. W., 5814
Brecher, G. A., 3391, 4360, 4472
Brecher, I., 2467
Breed, F. S., 2767
Bregman, E. O., 2796
Bremer, F., 4032
Brennecke, H., 2656
Brenner, B., 5405
Bretas, A., 545
Breternitz, W., 5356
Briau, R., 4093
Brickner, R. M., 134
Bridgen, R. L., 1020
Bridges, J. W., 1100
Bridges, K. M. B., 4904
Bridgman, R. P., 1384
Brierley, W. G., 5747
Brigance, W. N., 4805
Briggs, L. V., 5594
Brigham, C. C., 4275
Brinegar, V., 5664
Bringern, H. L., 3714
Brink, W. G., 3255
Brinkmann, D., 4863
Brinley, F. J., 932
Brintle, S. L., 2793
Britt, S. H., 893, 1991, 3960
Britton, S. W., 1559, 1561
Broadwin, I. T., 583, 2108
Brody, B. S., 3024
Brolyer, C. R., 1362
Bromberg, W., 370
Bronfenbrenner, A. N., 1106
Bronk, D. W., 1533, 2948
Bronner, A. F., 1107
Bronstein, I. P., 6143
Brooke, E. E., 676
Brooks, C. M., 108
Broom, M. E., 584, 3306, 5670, 5817
Brotemarkle, R. A., 2632
Brouha, L., 1980
Brousseau, A., 5042
Brown, A. E., 585
Brown, A. W., 3919, 6143
Brown, C. W., 2807, 3884, 4922
Brown, F., 3646, 3952
Brown, F. W., 1108, 3586, 5595
Brown, G. M., 2300
Brown, H. C., 3365
Brown, J. F., 1100, 4829, 5476
Brown, L., 4092
Brown, M., 586
Brown, M. A., 2210
Brown, M. W., 1656, 2593
Brown, R., 587
Brown, R. H., 5659
Brown, S., 1109
Brown, W., 653, 3553, 5043
Browne, R. B., 4276
Brownell, W. A., 588, 589, 591
Bruce, H. A., 2109
Bruce, R. H., 3482
Bruch, R., 59
Bruck, C., 4996
Brücke E. T., 5835
Brückner, A., 3906
Brückner, G. H., 2515, 4997
Brueckner, L. J., 590, 3776
Brüel, O., 1854, 3090
Bruen, C., 5259
Brugger, C., 3530, 3587
Brugger, H., 3741, 5596
Bruhm, M. J., 4489
Brunello, B., 757
Bruner, A. B., 4864
Brunner, H., 4865
Brunschweiler, H., 371
Brunschwig, A., 2465
Brunswik, E., 1451, 5768
Bryan, A. I., 3836
Bryan, E. L., 3588
Bryk, F., 1743
Bryngelson, B., 1560
Buckley, A. C., 372
Bucy, P. C., 933, 4413, 5418, 5419, 5420
Buddenbrock, W. v., 44, 3025, 4033
Budina, —, 4584
Buel, J., 4484, 4490
Bugard, P., 3160
Bugg, E. G., 6009
Bugmon, E., 1855
Bühler, B., 5941
Bühler, C., 2329
Bührig, H., 1210
Bujas, R., 1900, 1937, 3907
Bujas, Z., 4034
Bullwinkle, B. A., 2168
Bumke, O., 373
Bunch, M. E., 894, 2516, 3960
Bunelli, B., 2949
Bunge, —, 473
Bunge, E., 2879
Bunker, H. A., 5914
Buntin, A., 4998
Bunzel, B., 2665
Burge, L. v., 2752
Burkersrode, J., 3647, 3820
Burkhard, E., 2517
Burkhardt, H., 3589
Burkhardt, L., 198
Burkholder, P. R., 199
Burks, B. S., 301, 2301, 3807
Burling, T., 5044
Burn, J. H., 107
Burns, C. L. C., 1198, 1856
Burrie, C., 5432
Burridge, W., 4830
Burrow, T., 2110, 2562, 3672
Burt, C., 450, 758
Burton, H. B., 4998
Burtt, H. E., 4698
Buschke, A., 1744
Busemann, A., 1295, 2330, 4277
Busen, K., 4008
Buss, O., 4831, 5115
Bustamento, M., 5990
Buswell, G. T., 591, 2753
Butler, J. R., 5732
Buytendijk, F. J. J., 201, 2021, 3483, 4935
Bykovskii, S. N., 4174
Bykowski, L. J., 1857
Byrne, J. G., 1938

Cabot, R. C., 1211
Cady, L. D., 374
Cahoon, G. P., 5653
Caille, R. K., 677
Caird, E., 759
Calabresi, R., 45, 807, 808, 2657, 2880
Caldwell, F. F., 2754, 4173, 5218
Caldwell, M. G., 1745, 5116
Caliver, A., 592, 2755
Callewaert, H., 2480
Calò, G., 5189
Calver, G., 5699
Calvert, E. R., 474
Cameron, D. E., 1110, 5433
Cameron, H. C., 1385
Cammann, O., 265
Camp, B. H., 2303
Campbell, A. A., 1717, 3648
Campbell, E. H., 2821

Campbell, G. W., 2261
Campbell, M., 5329
Campbell, M. A., 2711
Campbell, P. C., 3366
Campbell, W. A., 5220
Candee, B., 1363
Cannell, M., 2169
Canella, M. F., 2389, 6010
Cannon, W. B., 2924, 5852
Cantelle, P. G., 4936
Cantor, N., 2658
Cantril, H., 1718, 3138, 4144, 4645
Capron, V. L., 2756
Capgras, J., 4093
Carboguin, G., 959
Cardenal, C., 1838
Cardona, F., 3590
Carelli, A., 1212
Carington, W., 5915
Carlson, H. B., 1296, 6011
Carlson, W. R., 1939
Carlton, H. H., 1534
Carmena, M., 5991
Carmichael, L., 706, 3484, 5597, 5889
Carns, M. L., 2111
Caron, —, 2596
Caronel, V. A., 960
Carpenter, C. R., 202, 203, 3485, 4491
Carr, H. A., 760
Carr, J. W., Jr., 3777
Carrara, M., 3673
Carré, J. F., 2170
Carrington, H., 4063
Carroll, H. A., 2659
Carruccio, A., 809
Carter, H. D., 895, 1297, 3423, 3649, 4546
Carter, T. M., 6087
Case, C. M., 1746
Casella, B., 961
Casimir, R., 323
Cason, E. B., 885
Cason, H., 135, 885, 962, 2481, 3953, 3973, 4832, 5883
Casper, B., 3026, 3486
Castaldi, L., 5827
Castañer, C., 2390
Castellano, V., 5260
Castellino, P., 934
Caster, J. E., 1100
Castex, E., 136
Castle, E. S., 204, 5769
Castner, B. M., 3449
Caswell, H. L., 6088
Catalano, A., 3591
Cattell, M., 137
Cattell, R. B., 5267
Cavalcanti, P., 1213
Cavazza, F., 2660
Cavan, R. S., 3139, 5573, 5700
Cazzamalli, F., 5421
Cebrián, J. G., 2112
Cedarstrand, G., 304
Cenac, M., 2082
Ceroni, L., 2594
Chadwick, J. E., 3674
Chadwick, M., 1386, 2171
Chaffee, E. L., 3440
Chakvetadze, S., 4175
Chalisov, M. A., 5942
Chamberlain, L. R., 413
Chandler, A. R., 1747
Chaney, B., 678
Chang, C. J., 6012
Chang, T. H., 1982
Chang, T. S., 1520, 1805
Chang, Y. H., 2391, 2661
Chant, S. N. F., 4176
Chao, K., 2563
Chao, T. W., 1806
Chao, Y., 2822
Chapeaux, E., 2528
Chapin, E. K., 3392
Chapin, F. S., 2172, 4646
Chapman, D. W., 4313
Chapman, R. N., 5906
Charles, C. M., 2662
Charters, W. W., 1214, 1298, 4229
Chase, W. P., 3994
Chauchard, A., 1535, 1536
Chauchard, B., 1535, 1536
Chechulin, S. I., 2482
Cheesman, E., 3487
Chên, C. Y., 1807, 2757
Chên, H. P., 6014
Chên, H. S., 2758, 6089, 6090, 6091
Chen, L. K., 2663, 3961, 6092
Chên, T. Y., 1420
Chên, W. C., 2392
Chêng, T. H., 2759
Chêng, W. H., 2758, 2769, 6090
Chêng, W. S., 6091
Chernavkin, S., 4462, 4482
Chernishov, A., 1169
Cherrington, B. M., 2633, 3778
Chervonny, S., 2244, 2245
Chiang, C. K., 2717, 6013
Child, C. M., 205
Ch'in, K., 4052
Chinese Association for Child Education, 1808
Chotin, B., 5885
Chou, S. K., 761, 6014
Christiaens, A. G., 2223, 2224, 2225, 2226, 2262
Christian, A. M., 4763
Christie, A., 3314
Chu, C. I., 1809
Chu, H. N., 2518
Chu, Y. K., 1810
Chudorogeva, A. T., 1992
Chung, L. C., 5733
Chweitzer, 3424
Ciampi, L., 138, 2173, 2331
Cimatti, L., 3472
Clague, E., 3743
Clancy, F. J., 2113
Claparède, E., 2664, 4833, 4914
Clark, B., 3885
Clark, C., 1453
Clark, C. P., 1678
Clark, G. A., 3488
Clark, G. H., 1387
Clark, J. E., 475
Clark, J. H., 4470
Clark, L. B., 3489
Clark, L. P., 324, 1111, 2083, 2084, 2595, 3592, 5504
Clark, R. M., 5505
Clark, T. B., 1560
Clark, W. E. L., 3908
Clark, W. W., 4741
Clarke, R. T., 4647
Charlin, C., 1452
Claude, H., 375, 1657, 1679, 1680, 2596, 2597, 3593
Clausen, W., 3909
Clauss, H., 1388
Clem, O. M., 5701
Clemmensen, C., 2114
Clivio, C., 139
Clestermann, A., 2332
Clestermann, G., 2332
Cobb, P. W., 3910, 3911
Cobb, W. M., 6015
Coburn, C. A., 1100
Cocchi, A., 963
Cochrane, A. L., 5916
Cockerell, T. D. A., 4733
Codet, H., 1719, 1720, 5598
Coffin, H. J., 3393
Coghill, G. E., 1021, 1593, 2519, 5422, 5730
Cohen, B., 2115
Cohen, I. J., 5045
Cohen, L. H., 420, 810, 5477
Cohen, N. E., 1940
Coker, R. E., 4035
Colajanni, G., 762
Colburn, E., 2753
Cole, K. S., 3435
Cole, W. H., 206, 2520, 5884
Colenbrander, M. C., 3912
Colis, A., 3109
Collman, R. D., 3821
Colucci, C., 1174, 2823, 2950, 5117
Colyer, F., 2849
Comas, J., 2760
Comicescu, G., 2931
Compton, R. K., 896
Connolly, P. T., 1447
Conrad, A., 5506
Conrad, E. B., 1454
Conrad, H. S., 1100, 1364, 1858, 2367, 5279
Converse, P. D., 5219
Cook, K. M., 2761
Cook, T. W., 140, 1914, 4915, 5770
Cooke, D., 5673
Coolidge, H. J., Jr., 207
Coon, B. I., 2753
Cooper, J. A., 1811
Cooper, J. M., 5507
Cooper, O. A., 376
Cooper, S., 109
Cooperman, N. R., 1094, 2564
Cordes, F. C., 1455
Corey, E. L., 1561, 5828
Corey, S. M., 89
Coriat, I. H., 1100, 2085
Corkill, A. B., 110
Corman, L., 1680
Cornell, E. L., 3822
Cornetz, V., 208
Cornil, L., 2461
Cornish, R. E., 1941
Cornwell, W. S., 3436
Coronios, J. D., 2022
Corvin, M., 1100
Cory, D., 4834
Cosack, H., 5599
Cosmetatos, G., 3027
Costa, A., 1456, 3394, 4866, 4867
Costedoat, A., 2116
Coster, G., 4999
Couper, W. J., 3743
Courbon, P., 2598, 3594, 5508, 5509, 5510
Courthial, —, 5536
Courthial, A., 476, 1798
Courtis, S. A., 4734
Courtois, A., 1681, 2117, 3111
Coutinho, C., 1365
Couvé, R., 546, 5190
Coveney, K., 1299
Cowdery, K. M., 1300
Cownan, S. L., 111
Cowley, E. B., 2263
Cowley, W. H., 1301, 2762
Cox, J. W., 5853
Cox, G. H., 1457
Cox, G. M., 2807
Coxe, W. W., 3779, 3822, 5943
Crabtree, J. A., 5087
Crafts, L. W., 1993, 5434
Crawford, A. B., 3223
Crawford, B. H., 869
Crawford, L. S., 1215
Crawford, N. A., 3554
Crawford, S. C., 4492
Credner, L., 377
Creed, R. S., 109, 112, 141
Cremona, G., 5046
Cressey, P. G., 4648, 5600
Cressman, E. W., 2264
Crider, J. D., 4478
Crockett, H. M., 3595
Cronbach, A., 5601
Cronin, H. J., 1658, 1682, 2086
Crook, E. B., 1748
Crooks, A. D., 1812
Crooks, K. B. M., 6016, 6093
Crookshank, F. G., 3596
Croon, C. W., 1357
Crosland, H. R., 88, 763, 2476, 2477, 4400
Crow, L. D., 6113
Crowden, G. P., 2724
Crowe, S. J., 4881
Crozet, —, 5684
Crozier, W. J., 209, 5460, 5771, 5890
Crutcher, H. B., 1112, 1113, 5854
Crzyo-Dabrowski, W., 3675
Cuff, B. C., 1302
Cuff, N. B., 2309
Culler, E. A., 811, 1027, 3493, 5734, 5780
Cummins, H., 4547
Cunningham, E. M., 4821
Cushing, H. M., 593
Cutler, T. H., 833
Cutsforth, T. D., 46
Cutting, C. C., 4447
Cutting, W. C., 978
Czezowski, T., 812

D'Agostino, V., 8, 210, 2850
Dahlgren, U., 3450
Dahm, A., 3425
Dale, E., 1303
Dale, H. H., 1983
Dallenbach, K. M., 49, 1901, 3944
D'Allonnes, G. R., 1502, 3962
Dalma, G., 3597
D'Amice, V. E., 5702
Dammann, G., 5602
Danby, T. A., 3598
Dandy, W. E., 935, 3437
Danesino, A., 3395
Daniell, R. P., 3650
Daniel, R. P., 5118
Daniels, P. C., 6144
Dannevig, A., 211
Danowski, G., 5944
D'Antona, S., 1114
Danziger, L., 679, 2265
Darley, J. G., 4256
Darling, E. F., 5772
Darmois, G., 1839
Da Rocha, U., 547, 548
Darrow, C. W., 2483, 3451, 5330
Darsie, M. L., 594
Dashiell, J. F., 3426
Dautrebande, L., 4445, 5861, 5862
Davenport, C. B., 5471
Davidenkov, S. N., 1115
Davidson, G. M., 2174, 3995
Davidson, H. H., 1187
Davies, E. J., 1813
Davies, O. L., 2303
Davis, A. J., 5992
Davis, E. F., 1467
Davis, F. C., 1562, 1594
Davis, H., 123, 1904, 1942, 3987, 4361, 5773
Davis, H. T., 2304
Davis, M. E., 5486
Davis, P. W., 1304
Davis, R., 2625, 5774
Davis, R. A., 5220
Davis, R. C., 3676, 4937, 5435
Davis, T. M., 4145
Dawe, H. C., 5281
Dawson, W. M., 1076
Dayton, N. A., 378
Deal, R. W., 5654
DeAlmeida, M. O., 1537
Dearborn, G. V., 1100, 5511
Dearborn, W. F., 1216, 5119
DeBacker, A., 302
Debrue, G., 212
Decourt, —, 2599
de Crinis, M., 1538
Decroly, O., 5282
Deelig, E., 1253
DeFeo, G., 3837, 4278, 4806
DeGiuli, G., 764
De Groot, J. L., 3091
Dehn, G., 3315
Dehove, —, 2393
Dejean, R., 3954
De Jong, H., 1116
Dekking, H. M., 5735
De Kleyn, A., 4042
Delacroix, H., 4177
De Laguna, G. A., 2416
De Laguna, T., 5736
DeLargy, P. L., 2417
de la Vaissière, J., 1421
Delay, J., 5547, 5548
De Leeuw, C. H., 3902
Delgado, H., 680, 1902, 2394, 5512
Del Greco, F., 1117
Dell, F., 5283
Della Cioppa, D., 813
Delmas-Marsalet, P., 1595
de Medeiros, A., 814
De Mennato, M., 1118
Dementjeff, G., 3883
Demin, W. E., 5674
Deming, W. E., 1840
Demoll, R., 142, 964
De Monchy, S. J. R., 4094
De Montpellier, G., 1596, 5855
De Morsier, G., 379
Demos, R., 2395
Dempsey, E. W., 4960
Denis, J., 213
Denisoff, P., 1535, 1536
Dennis, L. T., 4178
Dennis, W., 1022, 3316, 4807, 5469, 5775
Denny-Brown, D., 936
De Parrel, G., 2418
Derbyshire, A. J. 1942, 4361, 4432
De Rezende, G. 416
Derryberry M., 1351
De Ruette, V., 5703

De Saedeleer, H., 214
De Sanctis, S., 1217, 2565, 2824, 3110, 3599, 4586, 5000, 5737
De Saussure, R., 325, 326, 4179, 4563, 5485
Deschampa, —, 5684
De Silva, F. W., 3306
Desmond, R., 6064
Desruelles, M., 5047, 5513
Dessoir, M., 5088
Destutt de Tracy, A. L. C., 1422
Detwiler, S. R., 2023
Deussen, J., 5013
Deutsch, H., 444, 2566, 3092
Devaux, E., 2484
Devine, H., 380
Dewey, E., 5295
Dewey, J., 90, 3161, 3256, 4279
Dewey, J. C., 3257
Dexter, E. G., 3651
Dhwawan, K., 5494
D'Heucqueville, G., 2443
Diamond, S., 1023, 2521
Di Bella, E. E., 5945
Di Bella, L., 953
Dickenson, H. F., 2444
Dickey, J. W., 4767
Dickinson, R. L., 2175, 4649
Dide, —, 5514
Di Domenico, M., 5120
Dieck, H., 549
Diethelm, O., 381
Dietz, P. A., 3955
Dietze, A., 4868
Diez, M., 2825
Diez-Gasca, M., 3224, 4230
Dikshit, B. B., 113
Dilger, I., 4699, 5191
Dill, D. B., 1577, 3996, 4564
Dillon, M. S., 5284
Dimmick, F. L., 5357
Dimmitt, L. L., 1999
Dimock, H. S., 5285
Dimpfel, R., 3367
Diringshofen, H. v., 1458
Dirr, H., 3677
Disher, D. R., 1389, 2881
Distad, H. W., 3258
Diven, K., 5423
Divry, —, 3452, 5515
Djelineo, S., 3490
Doane, H. C., 4869
Dockeray, F. C., 886
Dodd, D. R., 591
Dodd, F. H., 5286
Dodd, S. C., 5603
Dodds, E. R., 5001
Dodge, R., 1903, 3162
Doering, C. R., 5048
Dohlman, G., 937
Dolgolova, L., 4231
Doll, E. A., 1305, 3600, 3601, 4095, 5946
Döll, I., 5089
Dollard, J., 2600
Dolley, W. L., Jr., 215
Dombrowsky, H. L., 4835
Donaldson, H. H., 1979
Donat, J., 327
Donati, G., 1077
Dondini, F., 3453
D'Onghia, F., 2925
Donovan, H. L., 1306
Doob, J. L., 5675
Dooley, L., 2087
Dontas, M. S., 3027
Dorcus, R. M., 1024, 2118, 5331
Döring, W. D., 1814
Dorsey, J. M., 4433, 5516, 6017
Douglas, A. C., 9
Douglass, H. R., 3259, 3288, 3808
Dow, M., 6145
Drabovitch, W., 4329
Drain, H., 1423
Drake, R. M., 477
Dransfield, J. E., 1307
Draper, C. S., 10
Draper, G., 5567
Dreikurs, R., 328, 382, 4565
Drepa, H. F., 6018
Dresdner, I., 445
Driesch, H., 3368
Driggs, H. W., 5121
Drill, R., 1799
Driscoll, G. P., 681
Driver, R. C., 1939
Droba, D. D., 1749, 2634, 4180
Drobysheva, H. S., 2251
Drueck, C. J., 2601
Drury, M. B., 47
Duane, A., 5776
Dublin, L. I., 1764, 2665
Dublineau, —, 5536
Dublineau, J., 2596, 2597, 3689
Du Bois, P. H., 1119, 5517
Dubreuil, H., 3744
Ducasse, C. J., 2396
Dudycha, G. J., 682, 2666, 2667, 4735
Dudycha, M. M., 682
Duffy, E., 1971, 2926
Dufour, M., 1459
Dufton, A. F., 2549, 6131
Dugas, L., 2567, 4096
Duke-Elder, W. S., 48
Düker, H., 4338
Dumas, G., 1514, 1721, 5049
Dunbar, H. F., 2176
Duncan, B. K., 4438
Duncan, D., 3978
Duncan, O. D., 1750
Dunlap, J. W., 643, 4315, 4768, 4782
Dunlap, K., 1273, 1994, 3678, 5332, 6019
Dunlap, S. C., 965
Dunn, L. C., 4548
Dunn, M., 3602
Dunstan, W. R., 4870
Dupérié, R., 3317
Dupertuis, J., 1815
Dupouy, R., 3111
Durea, M. A., 2668
Durrell, D. D., 654
Durup, G., 3396, 3555
Dusser de Barenne, J. G., 117, 938, 3024, 3438, 5856
Dwight, C. A. S., 815
Dworkin, S., 3491, 4439
Dybowski, M., 1175, 4440, 4808
Dykgraaf, S., 3028
Dyroff, A., 3163
Dysinger, W. S., 1390

Eakright, J. B., 1859
Eames, T. H., 1943
Earhart, R. H., 49
Earl, C. J. C., 1120, 5518
Earle, F. M., 550, 3260
Earthy, E. D., 1751
Easley, H., 591, 897
Eatman, P. F., 150
Eaton, A. G., 1468, 1469
Eaton, M. T., 143
Ebaugh, F. G., 4587
Eberhart, J. C., 3684
Eccles, A. K., 2693, 6041
Eckert, H., 1308
Eckert, R. E., 5222, 5223, 5662
Eckstein, A., 5704
Eddingfield, I. D., 3878
Edds, J. H., 595
Eden, T., 4769
Eder, J., 4146
Eder, M. D., 329, 3093
Ederer, S., 2333
Edgerton, A. E., 5777
Edson, N. W., 1391
Educational Press Association of America, 5224
Edwards, A. S., 4147
Edwards, H. T., 1577, 3996, 4564
Edwards, K. H. R., 2635
Edwards, N., 2773
Eells, W. C., 478, 2669, 3679
Efimoff, W. W., 114
Efimov, M. E., 5287
Eggert, B., 2522
Eggleton, P., 2965
Egyedi, H., 330
Ehrenstein, W., 4836
Eichler, C. A., 2177
Eichler, W., 5829
Eidmann, H., 216
Einarson, L., 4925
Eisen, G., 5519
Eisendorfer, A., 5478
Eisentraut, M., 217
Eisonson, J., 4947
Eissler, K., 1451
Ekdahl, A. G., 5358
Elder, J. H., 1025, 1051, 4493
Elderton, M., 596
Eliot, M. M., 1860
Eliot, T. D., 5574, 5575
Elkin, J., 4405
Ellesor, M. V., 683, 1392, 5288
Elliott, M. A., 3680
Elliott, M. H., 1026, 2024
Ellis, H., 3140, 3164
Ellis, W. J., 1121, 3603
Ellwood, C. A., 1752
Emerson, H., 4064
Elmgren, E., 77
Elmquist, R., 939
Elperine, E., 659
Emerson, C. P., 4985
Emerson, H., 4588
Emerson, R. W., 1753
Emery, E. v. N., 597
Emme, E. E., 2763
Emmt, M., 1122
Engelhardt, G., 4809
Engelhardt, L., 5002
Engelson, M., 4097
Engerth, G., 383
Engle, E. T., 1764
Engle, T. L., 5090
English, H. B., 763, 1424, 2966
Enke, W., 1176
Entorf, M. L., 5225
Enzmann, E., 2044
Enzmann, E. V., 245
Epstein, A., 4589
Epstein, A. L., 1683
Epstein, B., 4947
Erb, W. H., 5416
Erfurth, W., 5359
Erhardt, A., 2523
Erickson, M. H., 3560, 5538
Erkens, J., 5122
Erlanger, J., 930, 1531, 1539
Ermolaeff, —, 2462
Escher-Desrivières, —, 1460
Espenschade, A. S., 3939
Essen, K. W., 2967
Essner, —, 5123
Estoup, J. H., 5192
Etbauer, E. J., 50
Ettig, F., 5003
Euler, U. S. v., 5862
Euler, V. S., 4445
Eurich, A. C., 2764, 3681, 4759, 5226
Evans, F., 6094
Evans, J. P., 4419
Evensen, H., 2670, 5050, 5051, 5520
Evrad, —, 3452, 5515
Ewer, M. A., 479
Ewert, P. H., 2968, 5436
Ewing, A. C., 2969
Ey, H., 375, 1563, 1684, 5521
Eyre, M. B., 1123
Ezhova, E., 2244, 2245

Fadeyeva, V. K., 2485
Fagerstrom, W. H., 3261
Fagg, C. C., 1641
Faggi, A., 2932
Faillie, R., 551, 1460
Fairchild, M., 4232
Falkenberg, B., 3882
Fantham, H. B., 3141
Farber, M., 3913
Farbish, S. A., 598
Faris, E., 5604
Faris, R. E. L., 5522, 5523
Farnsworth, P. R., 1177, 1218, 1309, 3682, 4280, 4736, 5605
Farson, M. R., 5685
Farthing, T. E., 5807
Fassbender, F., 1861
Faure, M., 3112
Faurot, L., 3029
Faust, J. F., 2286
Fauville, A., 966, 5052, 5053, 5091, 5289
Fay, —, 2970
Fay, P. J., 3780, 4737
Fearing, F., 967, 979
Fearney, E. E., 1685
Feder, D. D., 4829
Federn, P., 2088, 3369, 4098, 5917, 5918
Fedorov, S. J., 4590
Fel, H. N., 2671
Feigenbaum, D., 5919
Feinberg, B. C., 5403
Feingold, G. A., 5655
Fenton, N., 2827
Feigl, H., 1425
Feldberg, W., 1984, 1995, 5830
Feldman, W. T., 5333
Feldman, J. B., 5738, 5778
Feldstein, M. J., 4770
Felhorska, F., 4810
Feller, F. M., 1274
Fellmann, F., 5004
Fellmann, F. M., 5479
Feng, T. P., 115, 940, 941
Fenichel, O., 3094, 4065, 5005
Fenn, W. O., 4412
Fenton, N., 1685, 5268
Feofanov, M., 1310
Féré, C. S., 480
Ferenczi, S., 3095, 4066, 5006
Ferguson, H. H., 4837, 5739
Ferguson, J. H., 3030
Ferguson, L. K., 2948
Ferguson, L. W., 1219
Ferling, M., 331
Fernald, G. M., 1220
Fernberger, S. W., 3397, 3914, 4370, 4916
Ferrari, G. C., 1426
Ferree, C. E., 51, 1461, 1462, 2883, 3398, 3915, 4871, 5360, 5470, 5779
Ferreri, G., 4872, 4873, 5124
Ferrero, G. L., 481
Ferrière, A., 1722, 5290
Ferro-Luzzi, G., 3839
Fessard, A., 2460
Fessman, 5054
Fetscher, R., 2672
Fetzer, M. E., 3096
Field, J., 978
Fields, P. E., 4970
Figueridо, C. A., 4783
Filene, C., 3225
Filley, M. E., 2783
Fillmore, E. A., 5291, 5293
Finch, F. H., 3531, 3532, 6095
Finch, G., 811, 1027, 5734, 5780
Fink, E., 2933
Finkel, J., 1290
Finkenbinder, E. O., 5227
Finner, P. F., 1083
Finney, R. L., 4738
Fiorentini, R., 5193
Firestone, F. A., 3392
Fischel, W., 218, 552, 1597, 2021, 2025, 2026, 3483, 4494
Fischer, A., 2397, 5741
Fischer, E., 91, 5125
Fischer, F., 4100
Fischer, H. T., 5126
Fischer, M. H., 2951
Fischer, O., 5007, 5480
Fischer, S., 384, 2334
Fischgold, F., 4335
Fischl, P., 2335
Fisher, C., 2533, 4414
Fisher, M. L., 3318
Fisher, R. A., 1427
Fisher, V. E., 3142, 4635
Fishgold, F., 6136
Fishman, D., 1518, 3465
Fitt, A. B., 5437
Fitzgerald, J. A., 3262, 3840, 6096
FitzGerald, M. A., 1685
Fitz-Simons, M. J., 2336
Fjeld, H. A., 4961
Flach, A., 5857
Flachsbart-Kraft, F., 4441
Fleck, U., 3664
Fleming, G. W. T. H., 4136, 5524
Fleming, R. M., 5292
Flemming, E. G., 3143, 4148
Fletcher, H., 1463
Flournoy, H., 332
Flugel, J. C., 766
Foà, C., 1084
Foerster, O., 1540
Foley, J. P., Jr., 968, 1028, 3492
Folgmann, E. E. E., 482
Follows, A. B., 5781
Foot, S., 3841
Forbes, A., 1550, 5858
Forbes, T. W., 3454, 5444, 5525

Forbes, W. H., 4564
Ford, A., 11
Ford, C. A., 1178
Ford, E. G., 2765
Ford, F. A., 675
Ford, M. E., 2315
Forlan, G., 101, 1370, 4991
Foster, J. C., 3842
Foucault, M., 3427
Fowler, B. P., 6146
Fox, A. L., 52
Fox, D. L., 2019
Fraatz, P., 5526
Fraenkel, G., 219, 220, 221, 222
Fraenkel-Conrat, E., 4495
Franceschetti, A., 1944, 3916
Francis, K. V., 5293
Frandsen, A., 2716, 3214
Frank, G., 5664
Frank, H., 1862
Frank, M., 4967
Franke, L., 6166
Frankel, E., 4101
Frankenheim, H., 1863
Frankford, A. A., 3745
Frank-Kameneckii, J. G., 5127
Franklin, M. E., 333
Franz, S. I., 898, 942, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 4970, 5361
Franz, V., 3031
Franzen, R., 1351
Fraser, J. G., 2673
Frederick, R. W., 3263
Frederiksen, N. O., 5362
Free, E. E., 12
Freedman, S. S., 4176
Freeman, E., 144, 4416
Freeman, F. M., 2767, 5128
Freeman, F. S., 4626
Freeman, G. L., 2971, 3886
Freeman, H., 5527
Freeman, H. J., 599
Freeman, W., 1124
Frei, J., 969
Freiburg, N., 5194
Fremont-Smith, F., 5947
Frenay, N., 1996
French, T. M., 1564
Frenzel, F., 2119
Fresa, A., 1125
Frétigny, R., 2398
Frets, G. P., 3533
Freud, A., 334
Freud, S., 335, 1085, 1659, 1660, 3097, 5008
Freund, H., 5606
Frey, E., 446
Frey, G. A., 4362
Frey, O. C., 4698
Freyberg, H., 3165
Freystadtl, B., 4874
Freytag, W., 3683
Fricke, P., 5055
Friedemann, A., 1179, 3319, 4811
Friedjung, J. K., 2337
Friedlaender, M., 223
Friedmann, A., 684
Friedmann, B. D., 4591
Friedrich, H., 224, 225, 3025, 4033, 4496
Fries, M. E., 4067
Friesenhahn, H., 1864
Frisch, K. v., 3032
Frisch, R., 1352
Frischeisen-Köhler, I., 1472, 1473
Fritz, M. F., 3556, 4875
Fritz, R. A., 600, 2266, 2766
Fröbes, J., 4838
Froemming, A., 4149
Frogner, E., 1816
Fröhlich, F., 4363
Froment, J., 1565
Fromherz, H., 116
Fromm, B., 816
Fromm, E., 1723
Frommann, F., 4938
Fronius, H., 4041
Fröschels, E., 1686, 5607
Frost, L., 4269
Fry, F. D., 53
Fry, G. A., 54, 1474
Frye, E. K., 1078
Fryer, D., 3428, 4234
Fu, P. J., 1817
Fuchs, H., 5294
Fuchs, J., 3113
Fuchs, R. F., 3997, 3998
Fuller, B. A. G., 5742
Fuller, D. H., 2120
Fuller, R. G., 5069
Fülöp, S., 5438
Fulton, J. F., 117, 1041, 3030, 3034, 3042, 3504, 3979, 4409, 5420
Frumkes, G., 5529
Furfey, P. H., 1393, 3320

Gaddum, J. H., 1984, 5830
Gadelius, B., 1687
Gafafer, W. M., 385
Gagel, O., 1540
Gahagan, L., 2884, 4102
Galant, J. S., 483, 3605, 5608
Galashian, A. G., 4549, 4592
Galdo, L., 3166
Galeone, N., 970
Galkin, W. S., 1475
Gallagher, E. J., 4700
Galli, A., 3399, 3917
Gamisch, E., 4364
Ganger, K., 5609
Garceau, E. L., 1904
Gardien, M. P., 3114, 5047
Gardner, D. A., 484
Garland, J., 3843
Garma, A., 5920
Garner, J. R., 145
Garnett, M., 5261
Garov, S., 4617
Garrett, H. E., 644
Garrison, K. C., 685, 2338
Garry, R. C., 146
Garth, T. R., 484, 5129, 5705
Garvey, C. R., 1126, 2853, 3606
Garzicić, S., 4036
Gaskill, D. D., 817
Gaskill, H. V., 13, 887, 971, 972, 4701
Gasser, H. J., 3982, 4412
Gasteiger, H., 5782
Gates, A. I., 485, 601, 1905, 6097
Gates, L. W., 1945
Gatti, A., 55, 1476, 1477, 3400, 3401
Gatti, E., 3226
Gault, H., 818
Gault, R. H., 1221, 1428, 2178, 2885, 3918
Gauthier, M. J., 386
Gavini, H., 3455
Gayda, T., 973
Gaylor, J. B., 5530
Gaylord, E., 5357
Geck, L. H. A., 4651
Geert-Jörgensen, E., 3557
Gefter, Yu. M., 2486
Gehlert, G., 4390
Gehlke, C. E., 5676
Geipel, A., 486
Geisert, H., 2674
Gelauze, C., 819
Geldard, F. A., 820, 821
Geldreich, E. W., 1906, 5334
Gelei, J. v., 226
Gelfan, S., 128, 1997
Gellhorn, E., 147
Gelmont, A. M., 4739
Gemelli, A., 1222, 1754, 2227, 2419, 3167, 3402, 3887, 4181, 4235
Genevois, L., 148
Gengerelli, J. A., 899, 5439
Gengnagel, E., 3534
Genil-Perrin, G., 5531
Geoghegan, P. S., 6096
Georgi, F., 5948
Georgi, L., 1688
Gerard, R. W., 943, 1982, 4410, 4412
Gerberich, J. R., 3829
Gerdessen, H., 86
Gerendasy, J., 5921
Gergö, E., 767
Germain, J., 1977, 6137
Gerson, W., 4281
Gerstner, H., 5146
Gertler, H., 4923
Gertz, H., 56
Gerundo, M., 1127
Gesell, A., 706, 3844, 1429, 3370, 4442, 5859
Geyer, H., 4058
Ghirardi, G. E., 2524
Giacomin, V., 4839
Gibbons, H., 1230
Gibletti, C. T., 2339
Gibson, J. J., 5406
Gibson, K. S., 5774
Gidansky, J., 5456
Giddings, G., 4812
Giehm, G., 5993
Giersberg, H., 3035
Giese, F., 1566, 4339, 5195, 5196
Gifford, S. R., 5783
Gift, F. U., 14
Gilarovski, V. A., 1128, 1129, 1130
Gilarovski, W., 4652
Gilbert, H., 3049
Gilbert, R. W., 1993, 5335
Gilchrist, F. G., 227
Gilhousen, H. C., 228, 1029
Gillespie, F. H., 623
Gilliland, A. R., 1907, 3456, 3684, 4150
Gilbreth, L. M., 4236
Gillin, J. L., 2550
Gillingham, A., 507, 1846
Gilman, A., 2568
Gilmer, B. v. H., 1394
Gini, C., 5130
Ginsberg, M., 1908
Ginsburg, E. L., 686
Girden, E., 3493, 5734
Girden, E. S., 811, 1027
Gjessing, R., 1689
Glanville, A. D., 57
Glase, E., 3397
Glasshagle, E. E., 294
Glatfelter, E. A., 2273
Glavin, A., 1685
Gley, P., 3457
Globus, J. H., 3439
Glover, E., 2089, 2090, 3607, 4182
Glover, K., 5295
Glueck, B., 2121
Glueck, E. T., 3168
Glueck, S., 3168
Goddard, H. H., 2069
Godfrey, J., 5200
Godlove, I. H., 853, 1946
Goguchkin, A., 4231
Goldhamer, H., 3919
Goitein, P. L., 2340
Golahovskaja, A., 1200, 1201, 1378
Goldenberg, M. A., 5949
Goldberg, N., 1430, 1521
Goldfield, A., 4653
Goldscheider, I., 59
Goldschmidt, J. S., 1086
Goldstein, H., 4939, 5994
Goldstein, M. A., 4876
Goldstein, W., 2954
Goldstern, N., 2228, 2725
Goldzieher, K. R., 1180
Golla, F., 5424
Gonzalo, J., 5950
Good, C., 5445
Good, C. V., 2267
Good, W. R., 2305
Goodall, J. S., 1515
Goodenough, F. L., 706, 2855, 2856, 4282, 4340, 4784
Goodfellow, L. D., 818, 822, 3920, 5784
Goodman, S. E., 2838
Goodsell, W., 4654
Gordon, A., 387, 687
Gordon, H. L., 2602
Gordon, K., 92, 5363
Gordon, R. G., 388
Gorzechowski, W., 4237
Gos, M., 1030
Göttel, W., 3169
Göttke, L., 5951
Gottschaldt, K., 2341
Gottschalk, H., 3170
Goudge, T. A., 2857
Goyanes, J., 6020
Graber, G. H., 5610
Gräf, A., 2886
Graf, O., 4341
Graham, C. H., 4365, 5336, 5785
Graham, F. B., 6097
Graham, H. T., 1541
Granit, R., 109, 112, 974, 5831
Grauer, D., 3746
Gray, E. W., 1131
Gray, H. A., 6098
Gray, J., 1031, 1431, 3494
Gray, J. L., 4550
Gray, R. A., 2268
Gray, W. L., 1032
Gray, W. S., 2767, 3685
Green, E. H., 688, 2828
Greenberg, L. A., 4444
Greene, E. B., 975, 3171, 4740
Greene, R. A., 1132
Greenfield, B. L., 602
Greenwood, A. K., 2342
Greenwood, M., 3608
Gregg, F., 2726
Gregor, A., 389
Gregory, W. K., 3535
Giraznov, M. P., 5262
Grieger, M., 3321
Griffith, C. L. T., 487
Griffiths, M. A., 3784
Griffiths, R., 3845
Grillenzoni, C. A., 2675
Grimbert, D. C., 1690
Grimm, R., 1947
Grinker, R. R., 3980
Grippaudo, G., 823
Grippen, V. B., 6147
Grisewood, E. N., 5893
Groddeck, G., 4068
Groebbels, F., 229, 4497
Grollman, A., 2031
Groshong, E., 5462
Gross, A. E., 6099
Gross, K., 390
Grossart, F., 3172
Grosschopff, E. v., 5952, 5953
Groth, G., 3846
Groves, E. R., 488, 1398, 2179, 4655, 5132
Groves, G. H., 1396
Grozdanić, S., 2525
Grube, B., 4101
Gruenberg, B. C., 1397
Gruenberg, S. M., 1397, 5296
Grubel, H. W., 2551
Gualco, S., 976
Guerra, G. del, 2487
Grunewald, F., 3847
Guibor, G. P., 5786
Guidi, P., 1275, 1276
Guiler, W. S., 3782
Guilford, C. C., 603
Guilford, J. P., 824, 827, 2636, 2927, 4151, 3956, 4627, 5362, 5379
Guilford, R. B., 4151
Guirand, P., 2603
Gulliksen, H., 900
Gulstad, O., 2122
Gummersback, H., 2676, 5133, 6021
Gundlach, R. H., 1033, 1037, 2027, 4443, 4498
Gunn, M. A., 5297
Gurnee, H., 2887, 3403, 4183
Gürtner, F., 2180
Gutheil, E., 2569, 5056
Guthrie, C. C., 5743
Guthrie, E. R., 2978
Gutsell, R. S., 2075
Guttmann, A., 5481
Guyon, R., 2677

Haas, —, 4877
Haas, E., 3173, 3888, 4283
Haase, K., 1819
Habbe, S., 2727
Hackbusch, F., 1133
Hackenberg, J. L., 2269
Hacker, A., 230
Hadfield, J. A., 5057
Haeberlin, C., 4104
Haeussler, G. J., 1614
Haferkorn, W., 149
Haze, H., 2229
Haggard, H. W., 4444
Haggerty, M. E., 1818
Hahn, B., 5482
Hahn, H., 58, 59, 3921, 4238, 5364
Hahn, M., 3997
Hahn, R., 2552, 4593
Hahn-Kende, F., 3558
Haig, C., 3404, 4963
Hain, A. M., 1598
Hala, B., 4184
Halberstadt, G., 1691

Haldane, J. B. S., 303, 1432, 3536
Haldane, J. S., 60
Hales, W. M., 2973
Halik, L., 2028
Hall, C., 231, 977
Hall, O. M., 3227, 3748
Hall, C. S., 2526
Hall, G. M., 5134
Hall, G. W., 4594
Hall, O. M., 2728, 5197
Hall, R. M., 2420, 5365
Hall, V. E., 978
Haller, T., 1542
Hallett, W. N., 61
Hallowell, A. I., 5532
Hallpike, C. S., 5788
Halstead, W. C., 979
Halverson, H. M., 1398, 1865, 3537
Hamabe, M., 3981
Hamacher, L., 4105
Hambrick, F. L., 5228
Hamilton, D. W., 6100
Hamilton, E. L., 2974
Hamilton, G. V., 1661
Hamilton, H. C., 825, 2975
Hamilton, J., 3687
Hamilton, J. A., 1034
Hamilton, T. G., 5922
Hamlin, H. M., 3174
Hamlin, R., 6022
Hamm, A. M., 2768
Hammond, E. L., 3473
Hammond, L. M., 768
Hammond, W. A., 5135
Hampton, I. L., 1918
Hanawalt, E. M., 2934
Hand, H. C., 609
Handtmann, E., 2181
Handy, L. M., 4060, 5691
Hänig, H., 5009
Hankins, F. H., 1642, 1755
Hanna, J. V., 4152
Hannett, F. I., 4369
Hansen, J. E., 604
Hansen, S., 4986
Hansen, W., 1819
Hanson, A. M., 4470
Hanson, R. L., 5298
Hanström, B., 4964
Harap, H., 5248, 5252
Harbinson, M. R., 2421
Hardcastle, D. N., 2343
Harders, G., 2330
Harding, D. W., 605
Harding, M. E., 1181
Hardy, M. C., 3322
Hargan, J., 4628
Hargrave, T., 4239
Harlow, H. F., 1035, 1036, 3495
Harmon, F. L., 62, 2230
Harms, E., 2182, 3609, 4185
Harnack, W., 2999, 3471
Harnisch, O., 232
Harriman, P. L., 2604, 3175
Harrington, M., 4106, 5923
Harris, D., 1182, 3783, 5576
Harris, M. M., 5059
Harris, M. S., 1223
Harris, W., 2123
Harris, W. T., 800
Harrison, M. L., 6148
Harrower, M. R., 3848
Harrowes, W. McC., 4107
Hart, B., 5611
Hart, E. G., 2729
Hart, F. W., 4284
Hartenstein, E., 6149
Harter, R. S., 4401
Hartge, M., 655
Hartgenbusch, H. G., 1756
Hartley, H. H., 1314
Hartline, H. K., 4365
Hartman, C. G., 1599, 3496, 3510
Hartmann, G. W., 93, 447, 2768, 2888, 4153, 4878, 5229, 6065
Hartshorn, C. B., 606
Hartshorne, C., 3922
Hartog, A. H. de, 5744
Hartridge, H., 5789
Harvey, O. L., 3176, 5136
Hatai, S., 1600, 3036
Haterius, H. O., 5832
Hatfield, H., 553
Hathaway, S. R., 980
Hattendorf, K. W., 5299
Hattingberg, H., 4108
Hattori, Y., 5881
Hattwick, M. S., 2829, 5300
Haubold, M., 5301
Hauer, E., 1399
Haug, G., 4499
Haught, B. F., 4656
Haupt, D. D. M., 53
Hauptfeld, R., 3999
Hauser, D., 1819
Hauser, P. M., 1207
Hausmann, M. F., 1183, 4595
Hauson, L., 1522
Hawickhorst, L., 5366
Hawkes, H. E., 607
Hawkinson, M. J., 3776
Hawley, E., 1685
Hawthorne, J. W., 5612
Hayashi, T., 2466
Hayes, M., 689, 4629
Hayes, M. H. S., 4702
Hayes, S. P., 1948, 4879
Hayes-Towns, F. G., 826
Hayner, N. S., 489
Hazlitt, V., 2344
Healy, W., 2570
Heather, W. J., 4892
Heaton, K. L., 1311
Hecht, S., 1478, 1479, 1480, 2029, 3077, 3404, 3497, 5790
Heertje, H., 3899
Hegemann, F., 1506, 2976
Heidema, S. T., 4109
Heidiger, H., 4037
Heinbecker, P., 1530, 1543, 5417
Heindl, R., 5010
Heimerzheim, W., 4657
Heinrich, W., 2445
Heinrichs, H., 336
Heiser, F., 981, 2889
Heiss, J. Z., 5367
Held, O. C., 2830
Hellebrandt, F. A., 1998, 1999, 2000, 2001
Heller, T., 1134, 2124, 2345
Heller-Heinzelmann, R., 4186
Hellpach, W., 3688, 5137, 5613
Hellwig, A., 5011
Helser, A. D., 6023
Helsmoortel, J., 2422
Helsmoortel, J., Jr., 4110
Helson, H., 824, 827, 1949, 2446, 4411, 5425
Helweg, H., 1692, 3116, 3144
Hemmingsen, A. M., 1601
Hendel, W. C., 3889
Henderson, V. E., 982, 2571
Hendrick, I., 5924
Hendrickson, G., 2384, 3458, 4630
Henmon, V. A. C., 3264
Hennessy, W. D., 5302
Hennigar, A., 4295
Henniea, E., 828
Henninger, L. I., 177
Henry, F. M., 3884, 4922
Henry, G. W., 2629, 5533
Henry, L. K., 901, 5230
Henson, H. H., 6024
Hentig, H. v., 2649
Hepner, H. W., 3228
Herington, G. B., 1033, 1037
Herlitzka, A., 2977
Herold, R. E., 5534
Heron, W. T., 3498, 4970
Herrick, C. J., 944, 945, 1985
Herrman, L., 4551
Herrtwitch, W., 4285
Hertel, H., 829
Hersey, R. B., 6066
Herskovits, F. S., 4187
Herskovits, M. J., 4187, 5138
Herter, K., 1602, 4500
Hertz, D. H., 141
Hertz, M., 233, 234, 4301
Hertz, M. R., 5995
Herzog, H., 2148
Hesnard, A., 1662, 2678
Hetzer, H., 608, 1400, 1819, 2346, 3850, 5303, 5304, 5656
Heuyer, —, 5535, 5536
Heuyer, G., 3117, 3689
Hevner, K., 1224, 1358
Heyer, G. R., 769, 4111, 5483
Heyer, H. E., 4101
Heym, H., 5368
Heymans, C., 4445, 5860, 5861, 5862
Hibschman, H., 4188
Hicken, N. F., 164
Hicks, F. R., 3265
Hicks, J. A., 689
Higley, L. B., 2686
Hilden, A. H., 656, 657
Hildreth, G., 2679, 3177, 6138
Hildreth, G. H., 3784
Hilgard, E. R., 810, 830, 983, 3963
Hilgard, G. R., 3353
Hilgard, J. R., 3851
Hill, A. V., 940, 941, 946, 984, 1544, 4412
Hill, G. E., 3266, 4286, 6025
Hill, J. L., 6101
Hill, L., 63, 4940
Hill, L. B., 4446
Hillman, L. F., 1312, 6102
Hilpert, A., 5198
Hilpert, P., 391
Hilton, R., 15
Hines, H. C., 5657
Hingston, R. W. G., 235
Hinrichsen, O., 392
Hinsey, J. C., 1545, 4447
Hinsie, L. E., 5059
Hinst, B., 6103
Hippius, R., 3890
Hirayama, T., 2004
Hirose, K., 831
Hirose, K. H., 3967
Hirsch, E. W., 6026
Hirschberg, E., 1546
Hirschmann-Günzel, A., 5060
Hirovonen, M., 2471, 2954
Hische, W., 4189
Hisey, L. W. S., 4561
Hissem, I., 2831
Hitschmann, E., 337, 2091, 3098
Ho, C. J., 2769, 6104
Hoagland, H., 64, 118, 1603, 2890, 3037, 4366, 5833, 5890
Hocart, A. M., 490
Hoche, A. E., 1481
Hiefer, P., 5834
Hofe, K. v., 5369
Hoff, E. C., 4413,
Hoff, M. v., 3267
Hoffeditz, E. L., 5996
Hoffman, F., 1547
Hoffman, H. F., 2680, 3118, 5061
Hoffman, M. N. H., 5614
Hoffman, P., 947
Hoffman, R., 3038
Hoffman, H., 393
Höfler, R., 3405, 4367
Hofmann, A., 5012
Hofmann, W. A., 3749
Hofsten, N. v., 4552
Hofstra, S., 5139
Hogben, L., 3538, 3809, 4059, 4551, 4553, 5907
Hogbin, H. I., 6027
Hohmann, K., 5062
Hoisington, L. B., 4342
Holaday, B. E., 1451
Holaday, P. W., 1214
Holbrook, R. T., 4658
Holcomb, G. W., 568
Holland, B. F., 150, 3179, 5791
Hollingworth, L. S., 706, 4813
Hollós, I., 4069
Holmer, P., 3610
Holmes, F. B., 1869
Holmes, S. J., 1079
Holst, E. v., 3499
Holstijn, A. J. W., 3371, 5925
Holthausen, L., 394
Holtzclaw, B. C., 770
Holub, A., 395, 1643, 2347
Holub, M., 1643
Hölzermann, E. F., 3750
Hölzke, H., 3751
Holzlöhner, E., 1547
Homann, H., 236
Homma, S., 2681
Honecker, M., 3422
Hönig, K., 5370
Honnacker, A., 3785
Honty, L., 4184
Honzik, C. H., 832, 1038, 2030
Hoop, J. H. v. d., 2572
Hoopes, S. L., 1998, 2000
Hoops, R., 4190
Hope, C., 2573
Hopfinger, E., 237
Hopkins, L. T., 6105
Hoppe, J., 2149
Hoppock, M., 5199
Hoppock, R., 3229, 5199
Horinson, S., 4287, 4368
Horner, W. D., 1455
Horney, K., 338, 1184, 2125, 3559, 5926
Horowitz, E. L., 778
Horst, P., 1353, 2231, 5269
Horton, G. P., 1039, 5814
Horton, H. S., 4880
Horvat, A., 83
Hoskins, R. G., 5537, 5538
Hotelling, H., 645, 1354, 6132
Hoth, G., 4502
Hotz, H. G., 3786
Hou, C. L., 5835
Hough, W., 3180
House, F. N., 4659
Hoven, A. E., 2682
Howard, C. H., 2232
Howard, D. T., 1428
Howard, E., 2031
Howden, R. A., 1867
Howe, E. G., 5140
Howe, H. A., 4881
Howells, T. H., 448, 833, 1080, 2891
Hoyer, N., 2150
Hsiao, H. H., 694, 902, 985, 1401, 2399, 2447, 2852, 3852, 3923, 4000
Hsiao, S. D., 4336
Hsiung, T. Y., 4288
Hsu, F. Y., 4001
Hu, I., 1757
Hu, Y. S., 1693
Huang, I., 4289
Huber, E., 3500
Huber, K., 3891, 4343, 5792
Hudgins, C. V., 4660, 5440
Hudson, A., 3690
Hughes, J., 3982
Hughes, T. H., 1225
Hughson, W., 4881
Huguenin, J., 3268
Hühl, A., 5371
Huizinga, E., 4941
Hulin, W. S., 3924, 4344
Hull, C. L., 94, 339, 1040, 2002, 2478, 3039, 3230, 4965, 5363
Hulpieu, H. R., 2032
Humm, D. G., 1185, 3652
Hummel, H., 5706
Humphrey, E., 5457
Humphrey, E. S., 4503
Humphrey, G., 16
Hunsicker, H. H., 1135
Hunsicker, W. C., Jr., 5836
Hunnybun, N. K., 2158
Hunt, E. P., 2770
Hunt, L. I., 4703
Hunt, W. A., 3925
Hunter, E., 5658
Hunter, W. S., 2858, 3459, 5440, 5864
Hunting, L. M., 1259
Hurd, A. W., 2771, 3787
Hurlock, E. B., 690, 3323, 4814, 4815, 5305
Hurst, C. C., 4554
Husband, R. W., 1277, 1278, 2699, 4840, 5200, 5648
Husse, R., 2683
Husson, R., 1841, 4191
Huston, P. E., 3560
Hut, L. J., 3501
Hutchinson, F., 554
Hutchinson, M. E., 5231
Huth, A., 3269, 3653
Huxley, J. S., 3526
Hwang, I., 2833
Hyde, E. I., 4002
Hyman, H., 3563

Iakowieff, C., 4942
Ibañez, J. S., 5927
Iberico, M., 2394
Ibrahim, J., 3853
Ibukiyama, T., 834
Ichheiser, G., 151
Ide, G. G., 2270

Ihle, W., 5539
Ijdo, E., 1950
Ilieva, M. L., 5372
Ilkeda, K., 484
Ille, K., 3647
Illenden, J., 3502
Illge, W., 3854
Ilse, D., 2033, 3040
Imhofer, H., 4882
Ing, H. R., 111
Ingle, D. J., 1567, 2973, 5092
Ingram, W. R., 4369, 4414, 4415
Inman-Kane, C. V., 1136, 5691, 5971
International Labor Bureau, 2233
Iokoff, N., 555
Iowa Child Welfare Research Station, 5306
Irshanskaya, K. N., 4007
Irvine, H., 3122
Irwin, F. W., 4370
Irwin, J. O., 5263
Irwin, O. C., 1402, 2843, 3340, 5307
Isaacs, S., 691, 2348
Ishijima, F., 986
Ishikawa, T., 2488
Ishimoda, F., 5881
Israeli, N., 2637
Ivanov-Smolensky, A. G., 152, 4924
Ivanshina, E. A., 692

Jack, L. M., 5308
Jackson, A. B., 2605
Jackson, A. H., 4112
Jackson, E., 1482
Jackson, G. P., 491
Jackson, T. A., 1055, 3503
Jacobi, A., 238
Jacobi, W., 2527
Jacob-Klessner, E., 5954
Jacobsen, C. F., 1041, 4504
Jacobsen, O. I., 1226
Jacobsohn, F., 1744
Jacobson, E., 1568, 4003, 4448
Jacobson, W. E., 6028
Jacoby, H., 449, 2183
Jacquet, P., 2606
Jaederholm, G., 2349
Jaehner, D., 2350
Jaensch, E., 2151, 2909
Jaensch, E. R., 1403, 2152, 4841, 4917
Jaensch, P. A., 5793
Jaffa, A. S., 1364
Jahrreis, W., 1694
Jahrreiss, W., 5955
Jakovleva, S., 2918
James, W. T., 5891
Jameson, A., 1758
Jameson, S. H., 1758
Jamin, E., 3752
Janet, P., 1695, 1724
Janeta, O., 5563
Jansing, C., 4814
Janson, C., 3983
Janvier, H., 4038
Janvrin, F., 1696
Janzen, E. K., 4070
Janzen, W., 1604
Jarricot, H., 3939
Jasper, C. C., 6150
Jasper, H., 1605, 2463, 2464, 2469
Jasper, H. H., 4423
Jastak, J., 3691
Jastrow, J., 1909
Jekels, L., 340, 4567
Jelgersma, G., 4113
Jelliffe, S. E., 4661, 5965
Jellinek, E. M., 5538
Jellinek, A., 2892
Jelsma, F., 4416
Jenkins, J. G., 26
Jenkins, M., 1868
Jenkins, R. L., 2684
Jenkins, T. N., 4054
Jennison, D. B., 4960
Jenness, A., 1087
Jennings, J. R., 2730
Jenschke, M. T., 2346
Jensen, M. B., 4004
Jephson, I., 341
Jersild, A. T., 693, 1404, 1405, 1869, 3324
Jersild, C. L., 963
Jesinghaus, C., 4662, 4704
Jewett, I. A., 3270
Jha, B. N., 1313
Jobert, L., 3561
Jochims, J., 5540
Joel, W., 3934
Johannsen, D. E., 5373, 5374
Johnson, B., 1314, 1820
Johnson, C. S., 5141, 5615, 5616
Johnson, H. H., 5901
Jordan, H. J., 5892
Johnson, H. M., 771
Johnson, L. M., 2935
Johnson, P. L., 256
Johnson, R., 4992
Johnson, W., 5142, 5617
Joltrain, E., 1516
Jones, A. N., 1406
Jones, B. F., 3996
Jones, E., 342, 450, 758, 2092, 3099, 3562
Jones, E. S., 1315, 4290
Jones, H. E., 694, 895, 1870, 3423, 5309
Jones, J. R., 2936
Jones, L., 599
Jones, M. C., 1186
Jones, V., 3325, 5337, 5659
Jones, W. C., 1306
Jongbloed, J., 4005
Jonnard, R., 4006, 1460
Jordan, H. J., 4505
Jorgensen, C., 1366, 4318
Jörgensen, J., 4352
Joseph, A., 343
Josephson, E. M., 5794
Jossmann, P., 396
Judd, C. H., 3788
Judd, D. B., 835, 836, 837
Judd, H. D., 2059, 2545
Judin, T. I., 5969
Jung, A., 2465
Jung, C. G., 4114, 5484
Jung, G., 4345
Jung, L., 2528

Kabat, H., 2952, 4429
Kaczkowska, J., 4240
Kafka, H., 239
Kahlert, J., 1847
Kahmann, H., 2529, 3041
Kahn, E. A., 4600
Kahn, J. L., 2003
Kaindl, A., 5014
Kainz, F., 2184
Kalif, G. T., 3372
Kalitzki, M., 3998
Kalmus, H., 240
Kalpa, I., 1697
Kanner, L., 17, 695, 5997
Kantor, N. G., 4602
Kao, K. F., 5745, 5746
Kaplan, E., 2316, 2778
Kaplan, F., 4663
Kaplinski, M. S., 4596
Kapustnik, O. P., 153
Kardos, L., 838
Karimova, —, 3817
Karitzky, E., 5441
Karnaoukhov, M., 4241
Karpman, B., 2093
Karwoski, T., 4896
Kasak, M., 5541
Kasanin, J., 3611, 4115
Katcher, N., 962
Katin, L., 2731, 3231
Kato, G., 2466
Katz, D., 3181, 3924
Katz, H. L., 2442, 4044, 4397, 4398
Katz, M. D., 825
Katz, R., 3326
Katz, S. E., 3612, 5063, 5998, 6000
Kaufman, M. R., 4071
Kaufmann, H., 556
Kaufmann, I. W., 6956
Kaus, O., 344
Kawin, E., 2834
Kaye, G. W. C., 1483
Kayser, C., 2517
Kayser, H., 65
Kazeeff, W., 241
Kê, C. H., 2835
Kecskeméti, P., 18
Kefauver, G. N., 609
Kehrer, F., 397
Keilhacker, M., 2351
Keller, F. J., 5201
Keller, H., 4232
Kellermann, E., 5143
Kelley, K. P., 2686
Kelley, V. H., 2271, 3271
Kellogg, C. E., 6067, 5686
Kellogg, L. A., 1042
Kellogg, W. N., 1042, 2352
Kelly, E. L., 3100, 4371, 5375
Kelly, G. A., 839
Kelly, H. G., 5278
Kelly, J. P., 2685
Kelly, W. A., 2272
Kempný, L., 987
Kennard, M. A., 3042, 3504, 3984, 4039, 4409
Kennedy, F., 436
Kent, G. H., 4785
Kenzik, A., 4585
Kern, B., 4291
Kern, D., 1447
Kern, E., 5618
Kern, G., 1523, 4883
Kerr, W. H., 2732
Kerschbaum, P., 3855
Kessel, L., 3563
Kessler, G., 19
Ketron, C. V., 4292
Keys, N., 2638, 2641, 5233
Kharchenko, N. S., 4007
Khasan, S. I., 5969
Khozak, L. I., 696, 697
Kiang, H. Y., 1821
Kiesow, F., 66, 658, 3406
Kiessling, A., 3856, 3857, 4402
Kiil, V., 4040
Kilborn, L. G., 2423
Kilduff, S., 1465, 5361
Killian, C. D., 2966
Kinberg, O., 3233, 4597, 4636
Kindermann, E., 5458
King, J., 3373
King, M., 398
Kingsley, H. L., 5407
Kinser, E. L., 1081
Kinter, M., 1227, 3753
Kipp, H., 2353, 2354
Kirihara, H., 2185, 2234, 5442
Kirk, K. E., 1228
Kirk, S. A., 1316, 4664, 5957
Kirkman, F. B., 1043
Kirkpatrick, C., 304, 2639
Kirkpatrick, E. A., 5619
Kirkpatrick, M. E., 6029
Kiser, C. V., 305
Kiss, P. v., 5707
Kitson, H. D., 1279, 2733, 2772, 3232
Kitzmiller, A. B., 5459
Klaes, A., 4192
Klaften, E., 5708
Klamroth, E., 3858
Kleffel, W., 2235
Klein, D. B., 1088
Klein, E. R., 4815
Klein, K., 4506
Klein, M., 2530, 2531
Klein, R., 1407
Kleinbub, M., 840
Kleist, K., 5064
Kleitman, N., 1094, 2564, 4449
Klemm, O., 4372
Klemperer, J., 399
Klestadt, W., 1569
Kleschtschow, S., 4943
Klimpfinger, S., 1451
Kline, L. W., 2978
Klineberg, O., 2314, 2961, 5144, 5999
Kling, C., 5542
Klingelhage, H., 3926
Klossowski, P., 4568
Klochkova, K. V., 5969
Klug, J., 5145
Klughardt, A., 3407
Knauer, A., 3789
Kneeland, N., 4944
Knight, E., 4115
Knight, M. W., 3307
Knight, R., 2640
Kniss, F. R., 2273
Knoll, W., 4008, 4041
Knower, F. H., 3692
Knox, E. O., 3693
Knudsen, V. O., 1484
Ko, K., 4072
Kobayashi, F., 2004
Koblanck, A., 1986
Kobler, R., 154
Koch, A. M., 1044
Koch, H., 1280, 3234, 6927
Koch, H. L., 698, 1408, 3327
Koehler, O., 4966
Koehnlein, H., 4373
Koenen, J. M. H., 3613
Koepke, C. A., 4242, 5202
Koerth, W., 1258
Kogan, H., 4842
Kogan, M. V., 1281
Köhler, O., 557, 558, 1606
Köhler, W., 1485, 2839, 5376
Kohlhagen, F., 86
Koht, A. G., 866
Kojima, S., 2004
Kokubo, S., 1600
Kolbanowski, V., 1317
Kolle, K., 5065
Koller, G., 4507
Kolmer, W., 3040
Kolodnaya, A., 4243
Komarow, P. M., 2034
Kon-Frajnd, R., 5443
Konig, J., 2333
Konovalov, N., 4450
Koos, L. V., 2773
Korbsch, H., 3119
Korngold, S., 2236
Kornhauser, A. W., 3654
Kornmüller, A., 1548
Kornmüller, A. E., 4417, 4418
Korotkin, I. I., 699
Korsch, G., 155
Korth, C., 1486
Korzybski, A., 1910
Koshiba, K., 5881
Kosmin, N. P., 2034
Koster, H., 1570
Kotliarovsky, L. I., 700, 744
Kotsaftis, A., 3027
Kotvis, H. L., 6075
Kubrie, L. S., 5928
Kovacs, I., 2186
Kozin, N. I., 701
Kramer, F., 1229
Kramer, G., 242
Kramer, G. A., 610
Kranefeldt, W. M., 4073, 4074
Krapivkin, A., 1089
Kraskin, L. H., 4945
Krasnogorski, N., 702
Krause, E., 156, 559, 560
Krause, F., 492
Krauskopf, A. A., 493
Krauss, S., 3614
Krausz, E. O., 400, 451, 4569, 4570
Kravkov, S., 3928, 2893
Krechel, J., 4631
Krechevsky, I., 1034
Kredel, F. E., 4419
Kreezer, G., 1137, 1951, 2894
Kreiker, A., 3929
Kreindler, A., 2467, 2494, 3703, 4457
Krekel, H., 5620
Kremer, A., 841
Kreusch, M., 5146
Kreutz, M., 4786
Kriaschew, W. G., 2979
Kriashev, V. J., 4508
Kriazhev, V. I., 2489, 2532
Kriebel, A. C., 3754
Krismayr, C., 20
Kristul, E. L., 2424
Kroh, O., 3539, 4293
Krol, M. V., 1138
Kroll, A., 5660
Kroll, F. W., 345, 954
Kröning, F., 244
Kronfeld, A., 3957
Kropp, B., 245, 5460
Krout, M. H., 2687
Krueger, F., 3310
Krueger, W. C. F., 2448
Krüger, H., 2153
Krüger, H. E., 5544
Kubie, L. S., 125
Kubo, Y., 3964, 4154, 4155
Kucharski, P., 1759
Kuchina, E., 1090

Kuchta, J., 4816
Kühl, H., 246, 4509
Kuhlmann, K., 4987
Kuhn, H. J., 4632, 6151
Kühne, F., 4843
Kuhr, V., 4352
Kulemeyer, W., 67
Kulp, D. H., 1187, 1760, 4193
Kunert, S., 2187
Kung, C. C., 2774
Kung, H. C., 1318
Künkel, F., 1188, 2126, 4156
Kuntz, A., 5426
Kuo, K. W., 3460
Kuo, Z. Y., 2035, 2400
Kupalov, P. S., 4422
Kupke, E., 4705, 5203
Kuraishi, S., 903, 2937
Kurashkevich, S. G., 904
Kuroda, R., 1433, 1607, 1608
Kurtz, A. K., 4768
Kurtz, J. I., 2425, 4884, 4885
Kutak, R. I., 1761
Kutzner, O., 3182
Kuvatov, G., 4420
Kwint, L., 4817

Labes, R., 1549
Lachman, S. E., 695
Lacombe, R., 3374
Ladd, M. R., 1762
Lafora, G. R., 401
Laforgue, R., 1517, 4571, 5621
Lagache, D., 2603, 2607
Lago, R., 2760
La Grange, E., 247
Lahy, B., 4787
Lahy, J. M., 93, 2237, 3892, 4244, 4245
Lai, D. G., 4336
Laird, D. A., 68, 84, 1663, 2094, 2154, 2574, 4009, 5865
Lambeck, A., 5622
Lambert, E. F., 1550
Lambert, H. C., 1664
Lambert, R., 2238
Lamm, T., 2426
Lämmermann, H., 3429, 3965
Lampis, E., 842
Lampron, E. M., 306
Landis, C., 3461, 5444, 5545, 5818, 6000
Landmark, J., 346
Landon, R. H., 5747
Lange, G., 6152
Landsberg, P., 1763
Landry, L., 347, 4665
Lane, H. A., 4818
Lane, L., 2145, 2146, 2166
Lang, J., 3044
Langdon, G., 2775
Lange, B., 1822
Lange, H., 1409
Lange, J., 1698, 1725, 4116
Lange, W., 5546
Langford, R. C., 3183
Langfeld, H. S., 3893
Langhorne, M. C., 988, 1571
Langworthy, O. R., 157, 1410, 4421, 4510
Lanier, L. H., 772, 989, 2895, 4451
Lapicque, L., 158
Larguier des Bancels, J., 96
Laricchia, F., 843
Larsen, H., 4886
Larson, J. A., 1230
Lashley, K. S., 948, 1987, 4967, 5866
Laslett, H. R., 4158, 5147
Lasswell, H. D., 2188
Latif, I., 2239, 3184, 4194
Latmanisowa, L. W., 159, 2355
Laton, A. D., 2256
Lau, E., 1411
Lau, T., 5812
Laubenthal, F., 4599
Lauenstein, O., 5377
Lauer, A. R., 2896, 3894, 6068, 6069, 6070, 6071, 6072, 6073, 6074, 6075
Laughlin, H. H., 2070, 2071, 3081, 3540
Laughlin, R. M., 5895
Laugier, H., 1572, 1573, 2222
Lauterbach, C. E., 1574, 3462
Lavrova, Z. G., 703
Lavrova-Bikchentai, J., 3860
Lawe, F. W., 2734
Lawes, L. E., 3694
Lawton, S. U., 5913
Laycock, S. R., 1412, 4294
Layton, W., 4295
Lazarev, P. P., 773, 4452
Lazarsfeld, P., 3861
Leary, D. B., 5661
Lebedev, V. N., 1091
Lebedinski, A. W., 4946
Leblanc, M., 2606
Lebreuil, M., 5531
Leconte, M., 2598, 3594
Léculier, P., 2139, 3114, 5047
Ledebur, J. F., 2980
Lederer, E. v., 3862
Lee, C. A., 2735
Lee, D. M., 611, 4741
Lee, J. M., 646, 3790, 4741
Lee, V. K., 2776
Leedy, J. L., 989
Leeper, R., 2039
Leese, C. E., 4925
Lefay-Allaux, L., 3375
Legoun, A., 2244, 2245
Legrand, Y., 69
Legrun, A., 3328
Le Heux, J. W., 4042
Lehman, A. F., 3431
Lehman, H. C., 612, 5577
Lehmann, G., 1551
Lehmann, F. E., 1911
Lehrer, L., 3308, 4788
Leighton, R. W., 2777
Leibold, R., 4330
Leiri, F., 2427, 3463
Leites, R., 130
Lely, U., 2897
Lemming, R., 3464
Lemon, H. B., 5795
Lendrum, F. C., 3695
Lendzion, J., 4789
Lendzionówna, J., 4790
Lenkner, H., 3755
Lenoir, R., 4666
Leonhard, K., 4117
Leonhardt, C., 5148, 5820
Leonov, N. I., 3696
Lepley, W. M., 2981
Leppmann, F., 1229, 1231
Lereboullet, J., 3985
Lersch, P., 5093
Lessner, A., 2982
Lester, A. M., 3756, 6076
Leuba, C., 2356, 3329
Leuba, J., 5338, 5485, 5623
Leuba, J. H., 1232
Leulier, A., 1575
Leupold, R., 5204
Leventuev, P. I., 3823
Levetzow, G. v., 5709
Levi, L., 402
Levi-Bianchini, M., 1139, 3565
Levin, G. Z., 4926
Levin, M., 403, 3376, 3615, 3616
Levy, D. M., 2127, 2608, 4968
Levy, E., 2575
Levy, J., 704
Levy-Suhl, M., 2576
Lévy-Valensi, J., 3655, 5066, 5547, 5548
Lewerenz, A. S., 2711
Lewis, A. J., 4118
Lewis, C. I., 4844
Lewis, D., 774, 1487
Lewis, E. D., 5549
Lewis, F. H., 2983
Lewis, N. D. C., 404, 3697
Ley, A., 6030
Ley, J., 5496
Leyen, R. v., 3863
Lhermitte, J., 1699
Liang, B. T., 1609
Liber, A. F., 5558
Liberman, M., 659
Liberson, W., 551, 1990, 4246
Libman, E., 3408
Librachowa, M., 4403, 4742
Licht, H., 4667
Lichtenberger, J. P., 494
Lichtenstein, A., 6106
Lichtenstein, L., 495
Lichtenstein, P. M., 3698
Liddell, A. F., 775
Liddell, E. G. T., 2490, 2491, 3979
Liddell, H. S., 4970
Liddo, S., 844
Liebig, F. G., 4887
Liebold, F., 1700
Lill, L., 1569
Lieck, H., 3120
Lienau, C. C., 3409
Light, R. U., 3440
Likert, R., 6031
Lincoln, E. A., 4771
Lincoln, F. C., 1610
Lincoln, M. E., 1319
Lind, A. W., 5578
Lindberg, A., 4453
Lindberg, J. G., 845
Lindemann, E., 2612, 4423, 5929
Lindhard, J., 2492, 4931
Lindley, S. B., 5477
Lindner, T., 3617, 3618
Lindsley, C. F., 1233
Lindsley, D. B., 4454
Lindworsky, J., 3465
Line, W., 21, 2315, 2316, 2778
Link, H., 4912
Link, H. C., 4247, 4706, 6107
Lintvarev, W. S., 4346
Lintvariov, V., 4248
Lipmann, O., 160, 2306, 4707
Lippay, F., 5796
Lippert, E., 4743, 6153
Lippman, H. S., 5958
Lipsius, F., 3377
Lisitsa, F. M., 5872
Lisiecki, T. M., 4708
Liss, E., 2609
Lissmann, H. W., 4511, 4512
Lissner, K., 1576
Lithauer, D. B., 1823
Litterer, O. F., 496
Little, C. C., 5461
Litzka, G., 1413
Livesay, T. M., 613
Livingood, F. G., 4296
Lloyd-Jones, E., 3235
Lloret, B. L., 6001
Lo, T. K., 1824
Locke, N. M., 6139
Lockridge, L. L., 1912
London, L. S., 5934
Loewenbach, H., 947
Loewenstein, R., 1665
Long, H. H., 3699, 5119
Long, J. A., 4772
Longwell, S. G., 3121
Loo, Y. T., 119, 2468, 5837
Loofbourow, G. G., 2641
Loomis, A. M., 529, 5624
Looney, J. M., 5538
Lopes, B. L., 4404
Lorand, A., 4119
Lorand, S., 4075
Loranz, M., 350
Lord, A. B., 405, 1140
Lord, E., 4819
Lord, J. R., 3700
Lorente de Nó, R., 5427
Lorenz, E., 2240
Lorge, I., 905, 2736, 2779, 2809, 3791, 3824, 4947
Lorimer, F., 1764
Lotmar, R., 4513
Louden, M. V., 1367
Loudet, O., 4120
Loucks, R. B., 2036
Louis, D., 2688
Louttit, C. M., 776, 1434, 1435, 1912, 4845
Lovejoy, A. O., 1436
Loveland, F., Jr., 497
Lovell, H. W., 4600
Lovett, R. F., 2241
Low, A. A., 423
Low, H. B., 4744
Lowe, P. E., 4803
Lowie, R. H., 3185
Lowrey, L. G., 2610, 2836
Lu, T. W., 5812
Lubina, E. S., 4317
Lubinska, L., 2984
Lublinsky, P., 4668
Lucas, A. M., 161, 162, 248
Lucena, J., 1141
Luck, D. G. C., 10
Lucka, E., 5378
Luckhardt, A. B., 4375
Luckiesh, M., 846, 1488, 1952, 3410, 3930, 4374, 4888
Luctator, 2242
Ludovici, A. M., 1092
Luetkens, C., 3186
Lufkin, H. M., 803
Lugiato, L., 1234
Luhan, J. A., 4455
Luithlen, W. F., 3701
Lukas, C., 5149
Lullies, H., 4505
Lumley, F. H., 2401, 4456
Luria, A. R., 4669
Lumpkin, K. D., 498
Lund, R., 5867
Lundberg, G. A., 1235, 6032
Lundeen, G. E., 3702
Lundholm, H., 1701, 4846
Lundsgaard, E., 137
Lungwitz, H., 4847
Luntz, A., 249, 250
Luquet, G. H., 499, 6033
Lurie, M. H., 1942
Lusternic, R. E., 4596
Lutz, F. E., 3505, 5893
Luxenberger, H., 406, 2128
Lyman, R. L., 2767
Lyman, R. S., 1510, 4422
Lyon, V. W., 5094, 6108
Lyons, L. V., 134
Lynch, G. E., 2689

Mabie, E. C., 1913
MacClenathan, R. H., 2837
MacCurdy, J. T., 4948
Macdonald, J., 5748
Mace, L., 2625
Macewicz, P., 4773
Machener, H., 5797
Machol, H., 990
Macht, D. I., 5486
MacIver, R. M., 2189
MacKane, E., 1489
MacKay, M., 5653
MacKay, R. P., 4594
MacKenzie, C., 991
Mackenzie, R., 4889
MacLeod, W. C., 500
Macleod, A. G., 1589
Macomber, F. G., 614
MacPhail, A. H., 3272
Macrae, A., 2339, 3236, 4745, 6109
MacRobert, R. G., 4121
Maddox, E. E., 4848
Maeder, A., 2611
Magard, P., 251
Magdsick, W. K., 2516
Magee, J. H., 1702
Magill, W. H., 2780
Magnitzky, A. N., 2953
Magoun, H. W., 1552, 2952, 3416, 2533, 4429
Maguino, C., 4988
Maier, E., 3757, 4709, 4710
Maier, N. R. F., 97, 501
Maietti, M., 1236
Maire, —, 4006
Mairs, G. T., 4547
Makovetski, V., 3895
Malamud, W., 2612, 3729, 4423, 5929
Male, P., 1871
Malcove, L., 2577
Malinowski, B., 502, 6027
Malisoff, W. M., 777
Mallart, J., 2243
Mallay, H., 1879, 3339
Maller, J. B., 1237, 3702, 3864, 4159, 4405, 4791, 5579, 5819
Mallet, R., 1703
Mallory, 3656, 1953
Malzberg, B., 5069
Mandal, H., 2015
Mandell, S., 2095
Mandolini, H., 3657, 3658, 4633
Mandowsky, A., 407, 6034
Maney, C. A., 615, 3273
Manigh, W., 4010
Manya, J., 1524
Manning, J., 5147
Mansurov, S., 3877
Manwell, E. M., 5311
Manyà, J. B., 22, 3966, 5408

Manzer, C. W., 660, 992, 3466, 5868
Marais, E., 252
Marañón, G., 4670
Marbe, K., 452
Marburg, O., 5550
Marchand, L., 2129
Marcus, H., 3441
Marcuse, M., 1229
Maréchal, P., 3045
Mareschal, —, 5551
Margaria, R., 1577
Margaritzky, S., 86
Margenau, H., 5339
Margineanu, N., 2402, 2403, 2409, 2449, 2493, 2737, 2860, 3145
Margotta, G., 847
Margulies, M., 2613
Marinesco, G., 2494, 3101, 3703, 4457
Maritain, J., 1525
Markey, F. V., 693, 5150
Markov, D. A., 4601, 4602
Marks, E. S., 778
Marples, G., 1045
Marques, P., 4246
Marquis, D. G., 949
Marrow, A. J., 3142
Marschak, M. E., 4011
Marsh, C. J., 1368
Marshall, A. J., 3825
Marshall, B. H., 5379
Marshall, C., 1046, 5749
Marshall, C. R., 1490
Marshall, H., 1189
Marshall, W. H., 4410
Martens, E. H., 616, 1320, 4813
Martens, H. A., 4711
Martin, A., 2534
Martin, A. H., 4890
Märtin, H., 4331
Martin, L. C., 3931
Martin, P., 2985
Martini, E., 3046
Martino, G., 3047, 5552
Martz, E. W., 408, 1142, 3122, 5959
Marulli, A., 848
Marum, O., 661
Marx, F. M., 3619
Marx, H., 163
Marzi, A., 1282, 1526, 2404, 3330
Marzloff, S., 4297
Maslow, A. H., 1047, 1974, 2450, 5462
Masobello, G., 3237
Mason, B. S., 2988
Mason, E. D., 4076
Mason, E. R., 3056
Mason, G., 2451
Mason, S. H., 3082, 3083
Masquin, P., 3593
Mast, S. O., 70, 253, 254, 255, 256, 3048
Masters, H. V., 2810, 4758
Mata, L., 1920
Mather, J., 2690
Mathews, S. M., 4820
Matsumote, H., 3967
Matsumoto, J., 6154
Matthes, E., 1611, 2037
Matthes, K., 2490, 2491
Matthews, B. H. C., 23, 120, 927, 5821
Matthey, G., 3932
Matusmia, S., 2005
Maurer, S., 2327
Mautiz, H., 5205
Max, L. W., 3467
Maxfield, K. E., 3865
May, M. A., 1256, 3146
Mayendorf, E. N. v., 409
Mayer, L. L., 3411
Mayerhofer, G., 561, 4712, 5869
Mayers, L. H., 453
Mayoud, R., 1565
Maza, A. L., 4319
Mazzini, —, 1872
Mazzoni, G., 4849
Mazzoni, O., 3704
McAlpin, A. S., 3826
McCall, W. M., 595
McCarthy, R. C., 6155
McCartney, J. L., 2130, 5151
McCloy, C. H., 2006
McClure, J. H., 1750
McClusky, H. Y., 2781, 4298
McCollom, F. H., 2703
McConnell, T. R., 2811
McConnel, U. H., 503
McCormick, M. J., 504
McCready, E. B., 2131
McCue, C., 3431
McCullagh, D. R., 164
McCullagh, E. P., 164
McCulloch, T. L., 1704, 5454, 5463
McCutcheon, M., 1636
McDonald, M. F., 779
McDougall, W., 315, 1765, 2928, 6035
Mcdowall, R. J. S., 165, 166
McElwee, E. W., 2782, 3331, 6036
McFadden, F., 4891
McFarland, R. A., 993, 5059
McFie, B. S., 3866
McGeoch, J. A., 98, 780, 907, 908, 909, 910, 1975, 2939, 4918, 5409
McGeoch, G. O., 906, 3430
McGinnis, W. C., 617, 6110
McGlone, B., 803, 804, 1933
McGraw, M. B., 678, 3332
McIndoo, N. E., 1612
McKee, J. H., 3274
McKendree, C. A., 5553
McKinley, J. C., 167
McKinney, F., 911, 912, 994, 1975, 2940, 5409
McLauchlin, F. E., 77
McLeod, B., 1321
McNally, W. J., 121, 4949
McNamara, W. J., 4315
McNemar, Q., 3792, 5677
McNish, A. G., 3810
McPherson, G. E., 1143
McTeer, W., 168
Meed, M. R., 5554
Medical Research Council, 71
Medrow, W., 562, 3758
Meek, E. B., 2274
Meenes, M., 2941
Meerloo, A. M., 1190, 1766, 5625
Meerovich, R. J., 1144
Meerstens, J. L. F. H., 3828
Meggendorf, F., 1238, 2691
Meier, N. C., 3187, 4168
Meinertz, J., 2614
Meisen, V., 4347
Meisner, E., 5555
Meister, O., 4634
Meloun, J., 1726, 5152
Melton, A. W., 913, 3705
Meltzer, H., 888, 3659, 5095
Melvin, A. G., 6002
Mencken, H. L., 3188
Mendenhall, J. E., 2357, 6105
Mendenhall, M. A., 2357
Mendoza, R., 849, 5380
Meng, H., 3566
Meng, H. C., 1825
Mengel, E., 5015
Mengert, I. G., 5311
Menninger, K. A., 348, 3567, 5016
Menzies, R. N., 914
Meredith, L. A., 3275
Meriam, J. L., 5234
Merker, E., 257, 3049
Merker, F., 5710
Merrill, F. E., 3680
Merrill, R. R., 2177
Merry, F. K., 4792
Merry, R. V., 3933, 4792
Merrylees, W., 2405
Merzrath, E., 5264
Meshchaninov, T. T., 4671
Messer, A., 5017
Messer, W. J., 3793
Messerschmidt, R., 3568, 3569
Metalnikov, S., 2462
Metcalf, M. M., 4012, 5870
Metcalfe, Z. F., 2796, 3302, 3791
Metfessel, M., 1491, 3468, 3896, 3934, 5340
Mette, A., 6037
Metzger, W., 5381
Metzner, J., 258
Mewaldt, J., 5626
Mewes, F., 2942
Meyer, A., 3189
Meyer, A., 5960
Meyer, E., 5312
Meyer, M. F., 2428, 2986, 5410
Meyer-Ginsberg, A., 4249
Meyerheim, H., 5206
Meyers, H., 24
Meyerson, E., 4348
Meyknecht, J. T., 4031
Mezger, E., 454, 2680
Mezzino, L., 2898
Michael, A. A., 5313
Michael, S., 3935
Michaels, J. J., 2838
Michelson, N. I., 169
Michelson, T., 3190
Middlemore, M., 2692
Middleton, W. C., 1666, 4737, 6038
Mierke, K., 3147
Miles, C. C., 1191, 3148, 5687
Miles, G. H., 4713, 5212, 6077
Miles, W. R., 850, 1578, 3148, 4349, 4458, 5375, 5382
Milholland, J., 1349
Miller, A. R., 4424
Miller, E., 758, 1727
Miller, E. M., 5688
Miller, F., 2358
Miller, H., 4299
Miller, H. C., 1093
Miller, L. W., 2633
Miller, N. E., 6156
Miller, R., 5487
Miller, W. S., 662
Mills, H. C., 618, 5235, 5236, 5237, 5662
Milovidova, M. K., 2003
Milsom, A. K., 2190
Miner, J. B., 2578, 3759
Minkiewicz, R., 259
Minkowski, —, 4122
Minkowski, E., 1579
Minnich, D. E., 3050
Minovici, M., 2579
Mintz, A., 950
Mintz, B., 1995, 5894
Mira, E., 1767, 4195, 6039
Mirabella, E., 3620
Mirolubov, N. G., 4459
Mirsky, A. I., 1570
Misaki, H. K., 2711
Misbach, L. E., 995, 2987
Mitchell, E. D., 2988
Mitchell, J. H., 3238, 6078
Mitchell, M. B., 1976
Mitolo, M., 4425
Mitra, S. C., 889
Mitolo, M., 5871
Mitsche, R., 5383
Mitshenko, M. J., 4572
Miyaji, K., 2004
Miyake, S., 1768, 1769
Mo, A., 25
Mochizuki, M., 996
Mock, C., 3123
Model, M. M., 956
Moede, W., 563, 619, 1283, 3378, 4714
Moeder, W. D., 26
Moerchen, F., 6040
Moers, M., 1819
Mogan, C. J., 4478
Mohnkopf, W., 2007
Mohr, F., 5961
Molchanova, O., 2244, 2245
Moldaver, J., 4032
Molitch, M., 2693, 6041
Molitor, A., 260, 2038, 4043
Moll, A., 1239
Molson, H., 4555
Monje, M., 4363
Monnier, —, 2469
Monnin, J., 1848, 3794, 4250
Monod, J., 3051, 3052
Monro, M. S., 3239
Monroe, M. M., 1462
Monroe, W. S., 620
Moodie, W., 758
Mookherjee, K. C., 5384
Moore, A., 170, 1322
Moore, E. H., 5627
Moore, E. M., 1969
Moore, H., 1284, 3827, 5580
Moore, H. K., 2275, 2276, 5314
Moore, M. W., 2277
Moore, P., 5962
Moore, R. E., 2429
Moore, R. M., 2429
Moore, T. V., 505, 781, 2430, 3124
Morgan, T. H., 5908
Moorhead, D. F., 5750
Moorhouse, V. H. K., 3053
Morales, E. G., 6042
Morel, F., 1492, 3621
Moreno, J. L., 1240, 5153
Morey, R., 1048, 4969
Morgan, J. J. B., 2155
Morgan, R. C., 1466
Morgan, W. J., 3931
Morgenstern, S., 1667, 1668, 4077, 5711
Morgenthaler, W., 3333
Mori, H., 4774
Mori, K., 5881
Morice, A. G., 3191
Morinaga, S., 851
Morison, R. S., 4952
Morita, S., 3967
Moriyasu, M., 2495
Morris, E. H., 4746
Morrison, J. C., 621
Morrison, S., 1914
Morsh, J. E., 852
Morton, J. H., 4196
Morton, N. W., 5686, 6067
Moschcowitz, E., 4119
Moser, J. G., 705
Moses, J., 2359
Mosher, R. M., 1323
Moshinsky, P., 4550
Mosinger, —, 2461
Moss, F. A., 4970
Moss, F. K. 846, 1488, 1952, 3410, 3930, 4374
Mouchet, E., 85
Mowrer, O. H., 782, 967, 3054
Mowrer, W. M. C., 2839, 4793
Mowry, M. D., 2754, 5218
Moyer, C., 4442, 5859
Muchow, M., 1819, 3276
Mudge, E. L., 4747
Muenzinger, K. F., 3055, 4460, 4514, 5341
Muggia, A., 1873
Mühlmann, W. E., 2191
Müller, A., 3957
Müller, C., 3867
Müller, E., 261
Muller, F., 4332
Müller, G. E., 3936
Müller, H., 2132, 5556
Müller, M., 4971, 5067
Müller-Freienfels, R., 3897, 5154
Müller-Neff, M., 2989
Mullin, F. J., 1094, 2564, 4375
Munn, N. L., 4350
Munro, T., 2694
Munsell, A. E. O., 853
Munson, W. A., 1463
Muntsch, A., 3192
Muntsch, A. M., 5628
Murata, T., 854
Murchison, C., 706, 5751
Murdock, G. P., 2192
Murdock, J. H., 4123
Murphy, E. F., 1241
Murphy, G., 6031
Murphy, M., 5712
Murr, E., 4461
Murray, E., 2695
Murray, H. A., Jr., 1874, 4218, 5629
Murschhauser, H., 723
Mursell, G. R., 4572
Musatti, C. L., 2943
Muse, M. B., 4850
Musgrave, H., 28, 5340
Murtland, C., 4251
Mushejew, W. A., 2953
Muskens, L. J. J., 1049, 1050, 1493
Myasishchev, V. N., 1144, 1145, 1324, 5342
Myers, C., 2406
Myers, C. E., 2278
Myers, C. S., 307, 2279, 4197, 4300, 4715, 5207
Myers, G. C., 3622, 6157
Myers, H. I., 4960
Myerson, A., 1146, 3706, 3707
Myslakowski, Z., 4673

Nabert, J., 4674
Nachmansohn, M., 3125
Nacht, S., 1728, 5058, 5488
Naesgaard, S., 5018

Nafe, J. P., 1494, 5798
Naffin, P., 3868
Nagel, E., 1842
Nagler, J., 4198
Nakazima, S., 262
Nasonov, B. A., 5949
Nass, G., 4199
Nassau, E., 5713
Nathanson, Y., 5453, 6079
Neary, L., 2625
Nedler, —, 4129
Needham, J. G., 3937, 3412
Needles, W. B., 4892
Neet, C. C., 1613
Negus, V. E., 4950
Neifakh, A., 2861
Neild, H. W., 5750
Nelson, R. W., 1325
Nelson, V. L., 2556
Nelson, W., 2360
Németh, P., 1180
Nemzek, C. L., 663, 1406, 6095
Nenclares, F., 3334
Néoussikine, B., 1572
Neprash, J. A., 5630, 5678
Nerger, O., 3795
Neron, —, 5536
Neu, W., 4515
Neubauer, E., 3796
Neuhaus, W., 2008, 6152
Neumann, G., 2361
Neumann, J., 5019
Newburn, H. K., 5238
Newell, H. W., 6111, 6158
Newell, R. R., 308
Newlyn, D., 2553
Newman, E., 5385
Newman, J. L., 5963
Newman, H. H., 309, 3541, 3542, 4556
Newens, L. F., 3296
Newhall, S. M., 2990
Newton, H. C. F., 263
Ngowyang, G., 5838, 5839
Ni, C. F., 4516, 5386, 5464
Niccolini, P., 2431
Nice, L. B., 1518, 2442, 4044, 4397, 4398, 5465
Niceforo, A., 4316
Nicholas, J. S., 2039
Nicole, J. E., 5964, 5611
Nicoli, P. F., 3869
Niederhoff, P., 4376
Niederland, W., 3126
Niemar, G., 2362
Nier, F., 4851
Nikolskaya, P., 2244, 2245
Nilson, K., 5239
Nimkoff, M. F., 3193
Ninck, J., 1242, 2696
Nishizawa, R., 3240
Nissen, H. W., 1051, 3506
Noble, G. K., 3056
Noble, R., 1052
Noble, R. A., 410
Nodet, —, 3107, 5495
Noeggerath, H., 5489
Noguć, J., 1437
Nohl, J., 2944
Nojima, C., 2862
Noll, V. H., 4794
Nolte, W., 3057
Norden, I., 2317
Nordenson, J., 4377, 4378
Nordman, D., 3623, 3870
Norem, G. M., 915
Normann, H. K., 455
Norris, O. O., 4379
Northup, D., 147
Notestein, F. W., 1644
Notkin, J., 5965
Novikova, A. A., 707
Novograd, L., 2625
Novorasov, A., 4450
Nowikoff, M., 3058
Noyes, A. P., 2133
Noyons, A., 4005
Nuber, H., 3760
Nussmann, J. C., 264
Nutting, R. D., 4252
Nycander, G., 3624
Nyirő, G., 1147
Nylén, O., 816
Nyssen, R., 2422, 4110
Nystrom, G. H., 5155

Oakley, C. A., 564, 3761
Oana, M., 2004
Obata, J., 3967
Oberndorf, C. P., 2615, 3930
Obonai, T., 855
O'brien, C. S., 4893
O'Brien, J. D., 4603
Obrig, L., 5315
Obuchovski, P. M., 4380
Ochoterena, I., 2470
O'Connor, J., 2783, 4253
Ødegaard, Ø., 3625
Odier, C., 4124, 4573
Odobesco, G. I., 2134, 3626
O'Donnell, J. E., 294
Oelrich, W., 5156
Ogasawara, J., 856, 3938
Ogburn, W. F., 3708, 4775
Ogden, C. K., 2697
Ogg, F., 565
Ogle, C., 2535
O'Halloran, K. H., 5437
Ohm, J., 4381, 4382
Ohm, W., 708
Ojemann, R. H., 1875, 5240
Oka, A., 2004
Oka, S., 6159
Okabe, Y., 1171
Okuyama, M., 2496
Oldberg, E., 2490, 2491
O'Leary, J., 5417
O'Leary, J. L., 1530, 1543
Oliveira, H. de, 349
Oliver, R. A. C., 4200, 4201, 4202
Olow, J., 4636
Olson, W. C., 4821
Ombredane, A., 2852
Omwake, K. T., 350, 5221
Omwake, L., 1053, 2040
O'Neil, W. M., 2497
O'Neill, H. E., 3968
Onojima, U., 2863
Oort, A. J. P., 2899
Oppenheimer, J. J., 1369
Oppler, W., 4989
Orgel, S. Z., 4078
Ormian, H., 4320
Ornstein, —, 4894
O'Rourke, L. J., 3241
Ortmann, O., 506, 4383
Orton, J. L., 1095
Orton, S. T., 507
Orton, W. A., 2193
Osborn, A. D., 4852
Osborn, F., 1645, 4990
Osborne, H. V., 4125
Osborne, O. T., 5966
Osburn, W. J., 2784
Osgood, C., 3194
Osipov, V. P., 4351
Osipova, E. A., 4822
Osterberg, G., 72
Ostrowski, W. J., 4406
Oswaldo, —, 857
Otis, A. S., 4951
Otis, J. L., 4254
Outhit, M. C., 310
Overholser, W., 508
Owensby, N. M., 2135

Paffrath, H., 708
Paget, B. J., 709
Pallet, E. M., 2785
Palmer, C. E., 710, 711
Palmer, H. D., 4301
Paneth, L., 4126
Panico, —, 858
Pachomov, P., 4462
Page, J., 6003
Paikin, M. S., 4675, 5157
Pallister, H., 5347
Panov, A. G., 1148
Pansdorf, J., 3904
Parcheminey, G., 1669
Parfitt, D. N., 4127
Park, J. L., 3828
Park, T., 3507
Parker, E. P., 2767
Parker, G. H., 2041, 2042, 4927
Parker, H. T., 2280, 5967
Parker, V. H., 3709
Parkinson, C. A. A., 2786
Parkinson, J. L., 171
Parlog, C., 3195
Parr, L. W., 5799

Parratt, S. D., 1740
Parry, A., 6043, 6044
Parsons, E. C., 3196
Parsons, J. H., 2900
Parten, M. B., 2363
Partoes, M., 2281
Partridge, E. D., 3335, 5316
Partridge, R. C., 4426
Parvulescu, V., 5800
Pascal, J. I., 1954, 5801
Paschenko, F., 1089
Paset, G., 3336
Paskind, H. A., 311, 312, 313, 4013
Pastore, A., 2901
Pastori, G., 1222, 1754, 4181, 3167
Paterson, A. S., 1149
Paterson, D. G., 1915, 2221, 2864, 3299, 4255, 4256, 5187, 5208, 6112
Patey, H. C., 1326, 2787
Patrick, G. T. W., 1438
Patrick, J. R., 2498, 5411, 5895
Patrizi, M. L., 2499, 3710, 4014
Patry, F. L., 411, 4302
Patterson, H., 5241
Patterson, T. L., 3469, 3502, 3508, 4015
Pattie, F. A., 1916
Pattie, F. A., Jr., 1054
Pätzay-Liebermann, L., 5631
Patzl, H., 5796
Pätzold, N., 2902
Paul, J. B., 1327
Paul, L., 1955
Pauli, R., 3811, 3898, 5869
Pauling, K., 5387
Paunez, A., 351
Paviá, J. L., 859, 1956, 1957
Pavlov, I. P., 172, 2500, 2616, 3059
Pavlot, J., 3939
Pear, T. H., 1770, 2698, 2738, 2739, 5270
Pearl, R., 509, 5466
Pearson, E. S., 2307
Pearson, K., 2308
Pease, M. S., 2554
Peatman, J. G., 6139
Pechstein, L. A., 3458
Peck, M. W., 1670
Peckham, R. H., 783, 2407, 2840
Peckham, R. M., 2433
Peczenik, O., 4517
Peel, Z., 916
Pegel, W. A., 3019
Peirce, C. S., 5752
Peik, W. E., 5242
Peiper, A., 265, 1876, 2364, 2365, 5445
Peixoto, A., 2194
Peller-Roubiczek, L. E., 1826
Pen, R. M., 712, 713
Pende, N., 1243
Penman, G. G., 3908
Penrose, L. S., 1150, 5068
Pensims, K., 3570
Pentsik, A. S., 5872
Pepper, S. C., 2865
Pereira, J., 1328
Perémy, G., 4016
Péres, J., 6045
Perez-Cirera, R., 2991
Peritz, G., 412
Perkins, E. B., 2992
Perkins, F. T., 799, 3986
Perl, R. E., 3197, 3969
Perpinan, J. E., 5243
Perrin, G., 2580
Perry, J. S., 5968
Perry, R. C., 1192, 5096
Perry, R. D., 3277
Peschke, K., 3198
Pessin, J., 2699, 4164
Pessoa, C., 1359
Peter, H., 4676
Peters, C. C., 1244, 1329, 1355, 2282, 2311, 3711
Peters, H., 266, 267, 4518
Peters, H. N., 917
Peters, W., 3337
Petersen, W. F., 997
Peterson, A., 1614
Peterson, G. M., 4748
Peterson, G. M., 4519
Peterson, J., 918, 2536, 5158, 5343
Peterson, R. C., 714, 1245

Petit, G., 1151, 5557
Petrén, A., 2136, 4604, 4636
Petrescu-Heroiu, V., 4463
Petri, O., 784
Petrov, F. P., 3712
Petrov, P. M., 785, 1285, 3660
Petrov, S. P., 5969
Petrova, M. K., 3059
Petzelt, K., 4677
Petzold, H., 2043
Pfänder, A., 1439
Pfister, H. O., 3627
Pfleger, E., 6160
Phares, M. L., 2195
Phelps, K. R., 4468
Philip, B. R., 5714
Philips, A. J., 4219
Phillips, D. P., 5317
Phillips, G., 5388
Phillips, W. C., 73
Piaget, J., 5485
Piaget, M. J., 4574
Piaggio, H. T. H., 1843
Picard, F., 1615
Pichard, H., 5558
Pichon, E., 352, 1877
Pickard, R., 3413
Pickert, A., 2617
Piel, O., 1616
Pierce, A., 566
Pierce, A. E., 2753
Pierce, D. H., 4716
Pierce, W. O'D., 74, 2470, 4384, 6080
Piéron, H., 1617, 3396, 3414, 3940, 4464, 4795
Piéron, H., (Mme.), 1495, 1496, 1849, 4465
Pienaru Caplieseo, C., 3415
Pierre, —, 2418
Pieter, J., 5326
Pike, H. V., 413
Pikler, J., 860, 2432
Pillsbury, W. B., 786, 4853
Pincus, G., 209, 2044
Pine, H. E., 4895
Pines, L., 4427, 4428, 4928, 4929
Pinkston, J. O., 5428
Pinsent, A., 1827
Pintner, R., 1370, 3661, 4991, 5159, 5689, 6113
Pintus, G., 3628
Piotrowski, Z. A., 1152, 3629, 5998
Pi-Suñer, J., 4413
Pitkin, W. B., 173
Placzek, S., 1229, 4203
Plata, J., 3970
Plant, J. S., 2283
Platonow, K. I., 1096
Platt, W., 3338
Plaut, P., 1229, 3198
Plewa, F., 2366
Poate, E. M., 414
Pochino, M., 1558
Poffenberger, A. T., 2866
Pogibko, J., 4605
Pogolotti, R., 3713
Polack, M., 2903, 2904
Polak, L., 510
Poljak, S., 1958
Pollack, P., 2434
Pollitzer, M., 2284
Pollock, H. M., 2138, 2618, 5069
Pollock, J., 5318
Pollock, K. A., 2741
Polosina, L. V., 2501
Pomerat, C. M., 268, 314
Ponce, A., 2502, 4204
Ponisovskaya, A., 1290
Ponthus, P., 1497
Ponzo, M., 75, 1498, 1499, 1500, 2227, 2905, 3226, 3762, 3887, 4235
Pope, A. C. R., 2742
Popek, K., 4606
Popenoe, P., 1771, 1772, 4992, 5472
Popoff, N. F., 4017
Popov, N. F., 5873
Popova, G., 1153
Popović, S., 2841
Porak, R., 1580
Porot, A., 5070
Porta, V., 139
Portenier, L., 4854
Porter, E. P., 5705

Porter, J. M., Jr., 1154
Porter, J. P., 2993
Porteus, S. D., 1773
Pörtl, A., 3571
Posner, A., 1454
Posthumus Meyjes, F. E., 5802
Potter, H. W., 1155, 1156
Potter, LaF., 3199
Pouillard, G., 2435, 3871
Powdermaker, H., 1246
Powell, N., 2196
Powell, R. L., 3278
Powers, S. R., 2753
Pozdena, R., 5389
Poznanskaya, I. B., 715, 2503
Pradines, M., 76, 1959
Prall, C. L., 2377
Prasad, K., 2581, 3958
Pratt, B. M., 5280
Pratt, C. C., 861, 1960, 4399
Pratt, G. K., 511, 716
Pratt, K. C., 706, 3872, 4823, 4824, 6161
Prengowski, P., 1157
Pressey, L. C., 512, 513, 2700
Pressey, S. L., 512, 513, 2700, 5663
Preston, M. G., 1939
Preyer, J., 4520
Price, B., 919
Price, F. W., 3127
Price, J. St. C., 5160
Priebatsch, I., 4521
Prince, F. B., 1330
Prince, W. F., 1671
Prinzborn, H., 4160
Pritchard, E. A. B., 122, 2504
Proger, S. H., 1486
Prosser, C. L., 2537, 3509, 4522
Prost, P., 2619
Prötzsch, E., 5390
Przibram, H., 2045, 2046
Puckett, N. N., 5632
Pudreira, A. deB., 99
Pugh, M. A., 5391
Pulver, M., 6046
Purdy, D. M., 1158, 3971, 4970, 5392
Pushkareva, E. Z., 998
Putnoky, F., 2228, 2725
Pyatnitski, N., 4467
Pyle, W. H., 881

Quade, F., 5020, 5490
Quaglio, —, 2906
Quantius, L., 1949
Quastel, J. H., 5491
Quercy, P., 3797
Quigley, J. P., 4468

Rabaud, E., 1618, 3060, 6047
Rabelo, S., 1247
Rabinovich, V. I., 862
Radakovic, K., 1248
Radecki, W., 353, 415, 416, 664, 3379
Rademacher, E. S., 5715, 5716
Radin, P., 3200, 5161
Radó, S., 3102
Rahm, G., 5633
Rahm, K., 3572
Rahmatullina, S., 1200, 1201, 1378
Raignier, A., 2047
Rajka, T., 5707
Ramage, H., 1010
Ramdas, L. A., 269
Ramon y Cajal, S., 5840
Ranade, R. D., 5
Rand, G., 51, 1461, 1462, 2883, 3398, 3915, 4871, 5360, 5740, 5779
Rand, H. A., 1718
Rankin, N. R., 2766
Ranschburg, P., 1501, 2867
Ransom, G., 1828
Ranson, S. W., 863, 1552, 2533, 2952, 3416, 3573, 4369, 4415, 4429
Raper, G. F., 1685
Raphael, W. S., 3239, 3242
Rappaport, M. E., 2812, 4171
Rashevsky, N., 5344
Rathbun, C., 2096
Ratliff, M. M., 1972
Rau, P., 2538
Rauber, R., 3763
Raubicheek, L., 6048
Raufenbarth, C., 5841
Rauhlfs, K., 2907
Rawdon-Smith, A. F., 5788
Raymond, A. F., 5048
Raymond, C. S., 1159
Razran, G. H. S., 717, 2994
Reavis, W. C., 2788
Reckless, W. C., 3714
Reed, A. A., 514
Reed, J. V., 2197
Reeder, C. W., 6114
Reeve, G. H., 5970
Reger, S. N., 864, 1487
Regnart, H. C., 1619
Rehbinder, H., 5097
Rehder, H., 5071
Reisner, E. J., 6172
Reibel, H., 1193, 1403
Reich, D., 4855
Reichard, J. D., 1160, 1774
Reichwage-Huth, —, 5244
Reik, T., 354
Reiman, G., 2097
Reiner, R. C., 3957
Reinhardt, S., 1331
Reisen, A., 5319
Reiser, O. L., 5345
Reisner, E. J., 6162
Reiss, H., 1917
Reiter, N., 920
Reiter, P., 2137, 4607
Remmers, H. H., 622, 623, 625, 1332, 1356, 1800, 2285, 2789, 3304, 3812
Remy, K. H., 5162
Rendu, R., 2995
Reninger, H. W., 501
Renquist, Y., 77, 2471, 2954, 3941, 5813
Renshaw, S., 1918, 2908, 3899
Renz, C., 6163
Renz, M. P., 6163
Resnikoff, P., 1775, 6004
Restorff, H. v., 1527
Reusser, W. C., 5664, 5690
Révész, B., 3662
Révész, G., 4385
Reynolds, B. C., 6049
Reynolds, F. E., 2761
Reynolds, M. M., 1879, 3339
Rexroad, C. N., 999
Rheine, T. v., 515
Rhine, J. B., 315, 5021
Rhinehart, J. B., 567
Rhodes, E. C., 647
Rhyne, J. J., 5163
Ricci, A., 2996
Rich, G. J., 3663
Rich, W. H., 2539
Richard, A., 1575, 5875
Richard, G., 456
Richard, L., 2701
Richards, E. L., 5245, 5320, 5559
Richards, L., 2358
Richards, T. W., 665, 3340
Richardson, D., 270
Richardson, H. D., 2790
Richardson, H. M., 6164
Richardson, M. W., 1801, 2241, 5249
Richey, A., 3309
Richmond, W. V., 6115
Richter, C. P., 174, 3510, 4510
Richter, G. H., 3976
Richter, M., 3407
Ricker, C. S., 1161, 5164
Rickers-Ovsiankina, M., 3630
Ricketts, A. F., 5321
Ridout, J. H., 1003
Riedl, M., 2198, 2642
Rieffel, M., 5322
Riera, J. G., 6050
Riese, W., 417
Riess, B., 1055
Riess, B. F., 3511, 4972
Riesz, R. R., 5803
Rieti, E., 3341
Rife, D. C., 1646, 1647, 2555
Riggs, L. A., 4896
Rijlant, P., 2009, 2472
Rioch, D. McK., 951, 3979, 5428, 5822
Ripin, R., 418, 3342
Rischard, M., 1503
Ritchie, A. D., 175, 2473
Ritchie, J., 1648
Ritschl, O., 3201
Ritter, W. E., 3380, 4523
Rivlin, H. N., 3279
Rizzo-Borghese, C., 1006
Rizzolo, A., 4430
Roaf, H. E., 865
Roback, A. A., 1919, 4161, 5022
Robb, E. K., 2273, 2286
Roberts, C. S., 4635
Roberts, G. H., 3242
Roberts, M. P., 5717
Robertson, C. S., 5804
Robertson, E., 6051
Robin, G., 1707
Robinson, C. H., 2072
Robinson, E. E., 2796
Robinson, E. S., 1249, 5874
Robinson, E. W., 1056, 2367
Robinson, F. P., 2199, 2702, 2703, 3203, 5165
Robinson, S., 2309
Robinson, W. J., 1250, 4018
Robison, S. M., 5634
Rocha, R. A., 1920
Rochon-Duvigneaud, A., 1620, 1621, 2436, 5896
Rock, R. T., 2454
Rocour, A., 1996
Rodger, A., 2743
Rodgers, F., 6165
Rodrigo, M., 6137
Roe, A., 4303
Roeder, K. D., 1921
Roepke, M. H., 982
Rogers, C. R., 718
Rogers, H. S., 568
Rogers, H. W., 6116
Rogers, K. H., 624, 2778, 3280, 4019, 5166, 5446
Rogers, L., 1515
Rogues de Fursac, J., 2443
Rohde, K. H., 2909
Rohden, F. v., 1251, 2704
Rohden, H., 4469
Róheim, G., 516, 4079
Rohracher, H., 5098
Rojas, N., 2200
Root, H. F., 5429
Rosanoff, A. J., 4060, 5691, 5971
Rosanoff, I. A., 4060, 5691
Rosca, A., 517, 2409, 2813, 3128, 3150, 3151, 3203, 3310
Rösch-Berger, K., 4524
Rose, M., 3061
Rosell, C., 719
Rosen, Z. A., 3611
Rosenbaum, J., 4386
Rosenblueth, A., 144, 951, 1988, 4952
Rosenow, C., 5718
Rosenthal, —, 2201
Rosenthal, H., 3873
Rosenthal, S. P., 3129, 5167, 5635
Rosenson, W., 722
Rosenstein, J. L., 569
Rosenzweig, B. M., 176
Rosenzweig, S., 866, 2451, 2997, 5099
Rosett, J., 1553
Roslow, S., 6031
Ross, C. C., 921
Ross, N., 5393
Ross, R. T., 5679
Rossi, E., 3631
Roters, W., 4020
Rothe, E., 4712
Rothschild, R., 5753
Rotstein, G., 4257
Rouan, G., 2437
Roubinovitch, J., 1880, 3130
Roucek, J. S., 3204
Roule, L., 3062
Rovasio, A., 3103
Rowe, A. W., 2138
Rowell, H. G., 73
Rowland, L. W., 355
Rowland, W. D., 1504
Rowles, E., 2498
Rowley, J. B., 4525
Rowntree, L. G., 4470
Rubenovitch, —, 2597
Rubenstein, E., 4717
Rubenstein, P., 3664
Rubin, E., 3417, 4352, 5394
Rubinow, I. M., 1333
Rubinow, O., 2408, 6166
Rubright, L. W., 3502, 3508
Ruch, F. L., 4526
Ruch, T. C., 2490, 2491
Ruckmick, C. A., 27, 1390, 1922, 3715, 5402
Rudeanu, A., 1557
Rüdiger, J., 4796, 5323
Rugg, E. U., 1334, 5242
Ruhl, R. G., 28
Rulon, P. J., 648, 1357, 3813
Rümke, H. C., 4128, 5072
Ruml, B., 2929
Rummell, H. S., 6117
Rundquist, E. A., 1622
Rundquist, E. E., 2049
Rupp, H., 1335, 2246, 2998, 2999, 3281, 3470, 3471
Rushton, W. A. H., 3442, 5842
Rusk, R. D., 867
Russell, G. O., 4205
Russell, J. B., 2791
Rusu, L., 2409, 2505, 2814, 3149, 3150, 3151, 3243, 3244
Rüter, H., 3764
Rutherford, E., 638
Ruttmann, W., 29
Rutz, O., 518
Rutzler, J. E., Jr., 2075, 2076
Ryan, J. J., 6113

Sacerdote, A., 3632
Sachs, H., 2582, 4574
Sachs, W., 5023
Sack, H., 570, 4608
Sackett, E. B., 1336, 2287
Sackett, R. S., 5447
Sacksofsky, —, 2207
Sacristán, J. M., 1977, 5972
Sandiford, P., 6118, 6119
Saffir, M. A., 3716
Sagburg, T., 5719
Sage, P., 4115
Sahyun, M., 978
Saidmann, J., 1505
Saito, C., 2015
Sakuma, K., 2705
Salesskaya, E. H., 2251
Salisbury, J., Jr., 1750
Saller, K., 3543, 3544, 5720, 5721
Salmon, A., 1162
Salner, E., 625
Salomon, G., 1923
Salov, H. L., 2910
Saltmarsh, H. F., 4080
Salzedo, S. L., 519
Säzle, K., 3063
Sammartano, N., 3717
Samojloff, A., 2010
Samson, P., 2410
Samssonow, N., 2955
Sanborn, H. C., 787
Sandon, F., 1829
Sandvoss, H., 3000
Sanford, V., 4779
Santenoise, A., 2139
Santenoise, D., 4471, 5875
Santha, K. v., 2911
Sanz, E. K., 5973
Sanz, J., 720
Sarbaugh, M. E., 5246, 5247
Sargentich, S., 4856
Sarkady, L., 3993
Sarina, R. N., 1440
Sarró, R., 1729
Sartorius, H., 3245, 3765
Sasaki, R., 5881
Satmanisova, S. V., 4479
Satô, K., 1163
Sato, M., 2945
Sato, S., 4045
Saucier, W. A., 5665
Saudek, R., 316, 3205, 4061, 5168
Sauer, M., 3633
Saul, L. J., 123, 1942, 3987, 4410
Sauvain, W. H., 4749
Sayer, P. A., 2583
Scarf, R. C., 2792
Scates, D. E., 4258
Schaal, R., 6151
Schachter, M., 1881, 2620, 2842, 5974
Schachter, —, 4129

Schaefer, H., 868, 2912, 2913, 2956, 2957, 3001, 3002
Schäfer, T., 5876
Schaff, W., 4527
Schamarina, N. M., 159
Schanck, R. L., 4206
Scharrer, E., 2050
Scheid, K. F., 3634
Scheidemann, N. V., 626, 1074
Schell, J. W., 1800
Schell, M., 721
Schemann, H., 2011
Scherke, H., 1882
Schey, O., 5725
Schick, B., 722
Schick, W., 3512
Schiff, H., 4387
Schilder, P., 356, 370, 419, 4407, 5393, 5767
Schiller, B., 3874
Schiller, P. V., 4528
Schiotz, C., 5722
Schlaer, S., 1478
Schlechtweg, W., 4304
Schlesinger, H. I., 5795
Schliebe, G., 3798
Schlossman, A., 723
Schlotte, F., 2318
Schlüter, E., 1623
Schmaus, M., 1883
Schmaltz, G., 5931
Schmeing, K., 2368, 3343, 3875
Schmideberg, M., 357, 2098, 5932
Schmidberger, G., 2051, 3799
Schmidt, E., 1776
Schmidt, F., 3131
Schmidt, G., 1252
Schmidt, H., 3206
Schmidt, H. F., 3246
Schmidt, J., 5723
Schmidt, M., 1581
Schmidt, R., 4776
Schmidt-Japing, —, 3718
Schmidt-Mödling, W., 2099
Schmitz, A., 2140
Schmitz, L., 3574
Schmitz, W., 868, 2956, 2957, 3001, 3002
Schmotzer, F., 5024
Schneersohn, F., 2369
Schneevoigt, W., 4388
Schneickert, H., 5169
Schneider, —, 3972
Schneider, C. S., 5346
Schneider, E., 4081
Schneider, E. C., 2012
Schneider, G., 271
Schneider, K., 5073, 5074
Schneider, K. C., 2013, 2052
Schneider, K. M., 1057
Schneider, M., 947
Schneirla, T. C., 2053, 4529, 4530, 4973
Schnieder, E., 2151
Schnidtmann, M., 5975
Schnitker, M. T., 5848
Schöbel, R., 2914
Schoen, M., 1777
Schole, H., 4353, 4389
Scholz, F., 2156
Scholz, W., 4422
Schorn, M., 30
Schou, H., 2141
Schramm, G., 724
Schramm, W., 3766
Schreider, E., 571
Schriever, H., 1506, 4046, 4390
Schrijver, F., 2438, 5636, 6052, 6053
Schröder, H., 4678
Schroeder, L. J., 4953
Schroeder, K., 4679
Schroeder, T., 2100, 2101
Schubert, G., 1507, 4472
Schulmann, A., 5637
Schultz, I. H., 5560
Schultz, J. H., 4082
Schultz, J. P., 5248
Schultz, R. S., 372, 2217, 5347
Schultze, E., 3719
Schultz-Hencke, H., 4130
Schulz, O., 5100
Schulz, W., 272
Schulze-Naumburg, B., 520
Schumacher, H. C., 725
Schumacher, H C., 3635
Schuppe, —, 5170
Schuster, G., 3876
Schwab, E., 2958, 4047
Schwab, F., 2202
Schwartz, H. G., 5843
Schwartz, L. A., 521
Schwartz, S., 1286
Schwarz, O., 457
Schwarz, R. S., 5976
Schwesinger, G. C., 1082
Scoe, H. F., 5724
Scott, R. J., 3502
Scott, T. C., 177, 4473
Scottish Council for Research in Education, 666, 2815
Scripture, E. W., 1778, 1779, 1780, 1781
Seagoe, M. V., 6140
Searl, M. N., 359, 726
Searl, M. V., 358
Searle, W. F., 1708
Sears, R., 4021
Sears, R. R., 420, 4531, 5477
Seashore, C. E., 6054
Seashore, H., 6054
Seashore, R. H., 788, 789, 1358, 3720
Seay, M. F., 2288, 4305
Sebek, J., 2142, 5075
Seegen, M., 727
Seekles, L., 1583
Seelhammer, N., 5933
Seelig, E., 2203
Seeman, E., 3344, 4061
Seevers, M. H., 1098
Segall, J., 4532
Segel, D., 627, 646, 2793, 3282, 3829, 4797, 6120
Seham, M., 5725
Seidel, A., 4718
Seidel, W., 4022
Seidler, R., 2370
Seif, L., 421, 4131, 5977
Seifert, R., 273
Seki, H., 6167
Seland, B., 5722
Seligman, C. G., 522
Sell, J. P., 3021
Selling, L., 1782
Selling, L. S., 2371, 2706
Selz, O., 2289
Semenovskaja, E. N., 2893
Sen, I., 31
Senour, A. C., 2816
Seo, A., 274, 2014
Sepp, E. K., 4431
Seracky, F., 4750
Sergeev, V. I., 5171
Serouya, H., 1783
Servadio, E., 4576
Seth, G., 3721
Settle, E. O., 5638
Severino, A., 422
Severn, E., 4577
Sewall, H., 3942
Seward, G. H., 3003, 3472, 5877
Seward, J. P., 5877
Seyfert, W. C., 6121
Seymour, J. W., 2744
Seymour, S. L., 3491
Sgarbi, G., 1000
Sgonina, K., 4500, 4533
Shacter, H. S., 728
Shaffer, G. W., 2118
Shaffer, M., 1982
Shakow, D., 3560, 5538
Shalabutov, K. V., 4391
Shalutka, I. B., 2251
Sharp, L. B., 2753
Shartle, C. L., 6081
Shaw, C. R., 1254, 1255
Shchepkin, N., 2244, 2245
Sheard, N. M., 2062
Shelton, E. K., 2372
Shen, K. C., 4023
Shenton, H. N., 1784
Shepard, J. F., 2054
Sherbon, F. B., 6168
Sherrington, C. S., 3443
Shevarev, P., 4392
Shifrin, A., 4605
Shimidu, E., 6169
Shimizu, T., 2466
Shimosuma, T., 5881
Shinmen, M., 2004
Shipley, W. C., 1001, 3636, 5477, 4974
Shirley, M. M., 706, 4534
Shmidt, V. F., 2506
Shock, N. W., 3423
Sholl, C. V., 4680
Shores, L., 3722
Shraiber, J. L., 1097
Shreider, E., 1582
Shuey, H., 3900
Shumaker, N. M., 729
Shumskii, I. P., 3877
Shuttleworth, F. K., 1256, 5234
Shvedov, S., 4474
Sicher, L., 458
Siegelin, C. O., 34
Siegelmann, H., 4719
Siegl, J., 5726
Siemsen, G., 5395
Signoret, E., 2439
Sigogneau, A., 3207
Silber, D. A., 3418
Silberstein, L., 32
Silkett, B., 1892
Silverman, A., 1002, 3973
Silvette, H., 1559
Simmons, C., 5561
Simmons, P. W., 4681
Simmons, R. H., 1750
Simon, T., 1850, 4321, 5684
Simoneit, M., 2247
Simpson, H. N., 4432
Simpson, R. G., 5672
Simpson, R. M., 2643, 3723, 4162, 4207, 5639
Simpson, R. V., 2377
Sims, V. M., 5692
Simsa, J., 5025
Simson, T., 1164
Singer, H. D., 423
Singleton, A. O., Jr., 2429
Sinha, J., 4897
Sinkevich, Z. I., 730
Sjobring, H., 1705
Sjögren, T., 1706
Sjollema, B., 1583
Sjöström, —, 939
Skaggs, E. B., 2452, 2621, 4475, 5448
Skalwiet, —, 5581
Skalweit, W., 4132, 5076, 5077
Skeel, M. S., 3345
Skeels, H. M., 731, 1884
Skinner, B. F., 275, 1058, 1550, 3004, 3005, 4476
Skorodinski, G., 4228
Skramlik, E. v., 276, 277, 278, 3943, 4048
Skvorzov, K., 1153
Sladden, D. E., 4049
Sleeper, F. H., 5537, 5538
Sletto, R. F., 2707
Sliosberg, S., 5449
Sloan, L. L., 853, 5360
Slotow, M., 1639
Smalldon, J. L., 1165, 5078
Smeltzer, C. H., 3800
Smirnov, A. J., 4609
Smith, A. F. R., 4898
Smith, C. E., 4218, 5172
Smith, E. D., 6082
Smith, F. O., 78, 3006
Smith, G., 5727
Smith, G. E., 5348
Smith, G. M., 1371, 3311
Smith, H., 1363
Smith, H. J., 2753
Smith, H. L., 2794
Smith, H. S., 3676
Smith, J., 1709
Smith, J. C., 4610
Smith, J. M., 1961
Smith, J. R., 2708
Smith, K. R., 4254
Smith, K. U., 1059, 3381, 5897
Smith, M., 3608, 5693, 5701
Smith, M. D., 4919
Smith, M. E., 732, 733, 3346
Smith, O. C., 4477
Smith, P., 2770
Smith, R. S., 2326
Smith, T. V., 6055
Smithies, E. M., 734
Snapp, E. L., 2169
Snedden, P. K., 5477
Snedecor, G. W., 2310, 6133
Snee, T. J., 2319
Snyder, L. H., 1649, 3545, 4993
Snyder, L. M., 3347
Sobol, E. D., 5898
Solandt, D. Y., 2948
Solandt, O. M., 1003
Soler, J., 5562
Soler-Dopff, C., 1584
Soloviev, V. K., 1337
Solivieva, I. B., 2251
Sonnabend, H., 2204
Sontag, L. W., 2556
Sorenson, H., 3830
Sorokin, P. A., 523
Sorokin, V. F., 2251
Sorsby, A., 5473
Soskin, S., 5754
Soto, J. B., 2411
Sovák, M., 4208
Spaeth, E. B., 5805
Spaeth, S., 2709
Spahn, H., 4133
Spaier, A., 2540
Sparling, E. J., 3283, 4234
Spaulding, C. B., 1785
Spaulding, E. G., 3382
Spearman, C., 1372, 1373, 2817, 3814, 4322, 5101, 5694, 5695
Speck, F., 3208
Speer, E., 5978
Speier, H., 5755
Spence, K. W., 3513, 4974
Spencer, F. A. M., 4209
Sperantia, E., 5102
Sperber, A., 2205
Spiegel, E. A., 5836, 5844
Spielrein, I., 4259, 4260
Spiller, G., 4899, 5026
Spinder, H. J., 2206
Spirodonova, F. W., 2251
Spitler, H. R., 4900
Spitz, R. A., 3104
Spofford, W., 3021
Spragg, S. D. S., 5450
Spranger, E., 5349
Spring, W. V., 5756
Springlová, M., 5563
Sproule, G. E., 5696
Spurling, R. G., 4416
Staber, F., 2320
Staffelbach, E. H., 2750, 3774
Stagner, R., 2644, 3348, 4163, 4164, 5403
Staley, D. M., 1257
Stalnaker, E., 735, 736
Stalnaker, J. M., 628, 629, 2290, 2795, 4751, 5249
Stalnaker, R. C., 4751
Stanka, H., 4333
Stanton, F. N., 4720
Stanton, H. M., 1258, 2710
Staples, R., 737, 1519
Starikov, G. S., 279
Starr, H. E., 2157
Starrak, J. A., 3284
Stauder, K. H., 4134, 5979
Stauter, J. J., 1259
Stavraky, G. W., 2474
Stavsky, W. H., 1026, 3065
Steckel, H. A., 5564
Steckel, M. L., 4135
Steckle, L. C., 3007
Steele, E. H., 2586
Steele, I., 5580
Stefanescu, G. F., 2745, 3150, 3151
Stein, S. P., 2706
Steinbach, A. A., 2373, 4682
Steinbaum, J., 1786
Stein-Beling, I. v., 4050
Steinberg, J. C., 5806
Steinegger, W., 1624
Steiner, A., 1625
Steiner, G., 280
Steiner, M. A., 5250
Steinhaus, A. H., 1004
Steinhausen, W., 3008
Steinmann, I., 1166
Stekel, W., 2102, 4080, 4611, 4612, 5934
Stengel, A., 3473
Stephan, —, 5146
Stephan, F. F., 5640
Stephan, J. M., 84

Stephens, J. M., 2291, 2453, 4954, 5451, 5452
Stephenson, W., 633, 2800
Sterba, R., 5935
Stern, E., 2374, 3350, 3665
Stern, F., 2207
Stern, H. J., 4557
Stern, L., 3878
Stern, W., 1924, 1925, 2208, 4261
Sterne, G. deR., 2044
Sternegger, B., 2868
Stetson, R. H., 4210
Stetter, H., 3032
Stevens, G. C., 1672
Stevens, S. N., 6083, 6134
Stevens, S. S., 1926, 1962, 1963, 4901, 5396, 5397
Stevenson, G. S., 1326, 2787, 5727, 5980
Stevick, P. R., 1260
Stewart, H. H., 4752
Stewart, M., 3285
Stewart, R. M., 1101, 3579
Stewart, W. P., 3473
Stier, J. B., 2055
Stier, T. J. B., 3066
Stiles, W. S., 869
Stimpel, E., 1585
Stinchfield, S. M., 2209
Stirling, M. W., 1787
Stock, B., 4902
Stock, F. G. L., 4269
Stock, R., 5704
Stockert, F. G. v., 5565
Stockhammer, M., 1730
Stoddard, G. D., 1214, 1338, 5666, 5728, 6170
Stogdill, R. M., 2375
Stolte, H. A., 3067
Stoke, S. M., 612, 2557
Stoll, M. R., 5779
Stone, A., 1673
Stone, C. L., 3152
Stone, C. P., 1064, 4970, 5878, 2542
Stone, C. R., 524
Stone, H. M., 1673
Stone, L. J., 3944, 5807, 5894
Storch, O., 1626
Störring, G., 3724
Störring, W., 3132
Stott, M. B., 4262
Stover, D. F., 2261
Strabel, E., 4760
Strachey, J., 5936
Stracke, H., 3209
Stradley, B. L., 1339
Strain, F. B., 5729
Strakosch, F., 3637
Strang, R., 1340, 2210, 5667
Stratton, D. C., 2210, 3286
Stratton, G. M., 5404
Straub, W., 3801
Strauch, H., 5492
Straus, W. J., Jr., 1599
Strauss, H., 124
Stray, H. F., 3349
Strebe, W., 100
Strecker, E. A., 525, 738
Street, R. F., 4753
Strehle, H., 3103
Striemer, A., 3767, 3768, 4754
Strohal, R., 922
Strong, C. A., 5757
Strong, E. K., 1297, 1341, 2248, 2711
Strong, E. K., Jr., 3247, 3769, 6171
Strongin, E. I., 183, 361
Stroud, J. B., 3431
Struick, D. J., 1441
Strzemboss, T., 2445
Stuart, H. C., 3351
Stubbs, E., 2843
Studencki, S., 4721, 4810
Studnitz, G. v., 3068, 4051, 4535, 4536
Stumpfl, F., 3546
Stutterheim, N. A., 3945
Sugimoto, R., 5881
Süffert, F., 2915
Sugiyami, R., 2466
Sukhareva, G. E., 4613
Sullenger, T. E., 4683
Sullivan, C., 5325
Sumbaev, I. S., 424
Sumbayev, T. S., 4955
Summers, M., 2712
Sumner, F. B., 5474, 5899
Sun, M. H., 1830
Sustmann, C., 3009
Sutherland, G. F., 3491
Sutherland, J. D., 2818
Suttie, I. D., 178
Suzuki, M., 3153
Svetnik, Z. Y., 5845
Swab, J. C., 2311
Swabey, W. C., 3383
Sward, K., 2713, 3725, 3726
Sweet, E. C., 1342, 2622
Swenson, E., 3210, 3218
Swerdloff, S. M., 2959
Switzer, S. C. A., 1005, 5879
Sylvester, D. M., 739
Symmes, E. F., 740
Symonds, P. M., 3154, 3287, 3790, 4614, 6005
Syrkina, M., 4323, 5271
Szalai, A., 5937
Szász, T., 4956
Szuman, S., 5326

Tachibana, Y., 870
Taggart, A. D., 6056
Tainter, M. L., 978
Tait, E. F., 79, 2507, 5398
Tait, J., 33, 121, 4949, 5173
Tait, W. J., 4903
Takagi, S., 1060
Takahashi, H., 1287
Takimne, H., 3946, 4324, 4325
Takano, K., 871, 2440
Takei, K., 5881
Takenaka, S., 2015
Talaat, M., 1061
Talenti, C., 890
Tallmadge, M., 3259, 3288
Tamaike, J., 872
Tandy, M. C., 2145, 2146, 2166
Tang, H. C., 1788, 1831, 2714
T'ang, Y., 891, 4052
Tani, S., 3211
Tansley, K., 4053
Targonski, H., 4722
Tatum, A. L., 1098
Tausk, V., 2623, 4084
Taussig, L., 5566
Taylor, C. C., 526
Taylor, C. D., 2916
Taylor, G., 4684
Taylor, H. C., 527, 6006
Taylor, H. R., 1194
Taylor, W. H., 2801
Taylor, W. S., 2645
Teasdale, H., 3974
Teagarden, F. M., 4354
Teagarden, L., 528
Tello, J. F., 281
Temple, V. M., 743
TenCate, J., 3514, 3515, 3516, 3517, 3518, 3522, 5900
TenCate-Kazejewa, B., 3517
Tendler, A. D., 425, 4615
TenDoesschate, G., 2917
Tennant, R., 1627
Tenwolde, H., 6122
Teplov, B., 2918
Tepper, R. H., 2001
Teräskeli, H., 4393
TerBraake, A. L., 6057
Terhune, W. B., 426
Terry, P. S., 5251
Terwiel, G. J., 5892
Terwilliger, E. H., 4369
Tesar, L. E., 3289
Testa, A., 5174
Teubner, E., 3046
Teyrovský, V., 5467
Tharp, B. B., 573
Theman, V., 6130
Therman, P. O., 5831
Thiel, O., 5641
Thielen, J., 5981
Thieme, R., 2715
Thienpont, R., 4110
Thisted, M. W., 3290
Thom, D. A., 6172
Thomas, C. J., 4136
Thomas, D. S., 529
Thomas, F., 6173
Thomas, J. E., 4478
Thomas, M., 282, 283, 2056, 3069
Thomas, K., 1062
Thomas, R., 4798
Thomasson, A. H., 5808
Thompson, C. H., 630, 5175
Thompson, C. J. S., 1789
Thompson, I. M., 873
Thompson, H. W., 4755
Thompson, W. R., 1627, 2312
Thomson, G. H., 5265, 5680
Thomson, J. L., 5305
Thorndike, E. L., 101, 179, 667, 923, 1343, 2454, 2796, 3010, 3312, 4970, 5412, 5413
Thorne, F. C., 952, 2919
Thorner, H., 3070
Thornton, W. M., 1628
Thornval, A., 5880
Thorogood, B. K., 4085
Thouless, R. H., 1261
Thrasher, F. M., 4685
Thumb, N., 2321
Thurnwald, R., 741, 1195
Thurow, M. B., 5642
Thurstone, L. L., 714, 1245, 2322, 3011, 4326
Thurstone, T. G., 4326
Thyssen, J., 3727
Tiebout, C., 6174
Tiegs, D. W., 110
Tietz, E. B., 284
Tiffin, J., 2688, 2695, 4211
Tilney, F., 125, 126
Tilton, J. W., 3802, 6123
Timme, A. R., 2211
Tinbergen, N., 285
Tinel, J., 3638
Tinker, M., 1964
Tinker, M. A., 1262, 2716, 3212, 3213, 3214, 5272, 5697
Tinklepaugh, O. L., 2541, 3496, 4970
Tippett, L. H. C., 649
Tirelli, M., 1063
Tirelli, V., 530
Tiresias, P. N., 3575
Titeca, J., 5496
Titelbaum, S., 4449
Tittel, K., 5176
Többen, H., 3728
Todd, J. W., 1374
Todoranu, D., 2869, 3150, 3151, 3155
Tohri, B., 1200, 1201, 1378
Tokay, L., 5982
Tokuda, M., 5881
Tolman, E. C., 790, 4970, 4975
Tomasson, H., 1710
Tomilin, M. I., 1064, 2542
Tonner, F., 2543, 4537
Tönnies, F., 531
Tönnies, J., 3901
Toops, H. A., 3291, 4777
Tormey, T. J., 3292
Totze, R., 4538
Toulouse, E., 1442, 1573, 1711
Touraine, G. A., 5567
Tovell, M. L., 4756
Tower, S. S., 127
Towner, M. C., 591
Townsend, M. E., 631
Tozzer, A. M., 3084
Trabue, M. R., 3248
Trafton, H., 3827
Traill, M. J., 5252
Tramer, M., 4616, 5350
Tramm, K. A., 574, 575
Traugott, N. N., 2485, 2508
Travis, L. E., 706, 1263, 3729, 4433, 5516
Traxler, A. E., 5273
Trelles, J. O., 1699
Treloar, A. E., 5681
Trimble, O. C., 2441, 4757
Triplett, R. J., 5668
Tripodi, M., 1167
Troemer, B., 286
Trog, H., 5493
Trolan, H., 3293
Troland, L. T., 5809
Tropeano, G., 5079
Trossarelli, A., 1168
Trow, W. C., 3294
Tucolesco, J., 3071
Trueblood, C. K., 1065
Trumpaltz, J. I., 3418
Tryon, C. M., 1186
Tryon, R. C., 1066, 3815, 4778, 4970
Tryon, R. M., 2767
Tsang, Y. H., 4052
T'sao, H. C., 1832
T'sao, J. C., 4023
Tsudzimura, H., 1995, 3988
Tsukada, T., 924, 2455
Tsumura, T., 6175
Tu, T. C., 1833, 2717
Tuckman, J., 2456
Tudoranu, D., 2409
Tufts, J. H., 2718
Tuinstra, C. L., 5027
Tulchin, S., 2624
Tullio, P., 953, 1006, 3730
Tumlirz, O., 1819, 2376, 6124
Turchaninov, G. I., 5177
Turner, F. D., 3639
Turner, J. B., 3950
Turner, L. A., 34
Turney, A. H., 2802
Türkel, S., 4212
Turnbull, G. H., 4306
Tuttle, H. S., 3803
Twitmyer, E. B., 5453
Twitmyer, E. M., 6079
Twitty, V. C., 5901
Tyler, R. W., 1344, 2746, 5669
Tyndal, B. S., 6121
Tyndall, E. P. T., 874

Uchiyama, K., 5881
Uehling, H. F., 4165
Uexküll, J. V., 2057, 3012
Ufland, J. M., 159, 4479
Uhl, W. L., 2293
Uhland, J. M., 4024
Uhrbrock, R. S., 1288, 1801, 2870, 3770, 4263, 5209
Uiberall, H., 3519
Ullrich, F. H., 1345
Umstattd, J. G., 3804
Unrath, K., 5846
Unwin, J. D., 5178
Underwood, E., 4473
Unzicker, C. E., 6126
Uramoto, S., 5881
U. S. Census Bureau, 4137
U. S. Children's Bureau, 742, 2719
U. S. Office of Education., 6125
Uotila, U., 2471
Updegraff, R., 2844
Upshall, C. C., 2810, 4758
Urban, F., 1629
Usher, R. D., 2158
Ushijima, Y., 2681
Utterback, S., 4307
Utterback, W. E., 5414
Uttl, K., 4930

Vaille, —, 2584
Valega, J., 5568
Valenciano, L., 5983
Valens, H., 4213
Valentine, C. W., 1346, 2797
Valentine, W. L., 1885
Valentiner, T., 576, 6167
Valle, J., 1099
Vampa, D., 1275, 1276, 2845
Van Biervliet, J. J., 2249, 2250
Vance, R. B., 1790
Vance, T. F., 743, 2377
Vander Does de Willebois, J. J. M., 4138
Van der Horst, L., 4139, 5758
Van Dijk, J. A., 2960, 3520, 3521
Van Essen, J., 3902
Van Gilse, P. H. G., 4904
Van Herk, A. W. H., 3518
Van Herwerden, M. A., 2073
Van Rijnberk, G., 3522
Van Riper, C., 3474
Van Schelven, T., 4140
Van Tuyl, K., 4759
Van Uven, M. J., 2803
Van Voorhis, W. R., 1355
Van Waters, R. O., 3419
Van Wimersma Greidanus, H. T., 5104
Varé, P., 4471

[Various], 427, 791, 1554, 1886, 3215, 4265, 4857, 5179, 5984
Varner, W. B., 1067
Varnum, W., 35, 792, 4957
Varvel, W. A., 4858
Vasaki, S., 2015
Vasilesco, H., 2134
Vater, H., 4686
Vazifdar, N. J., 3989
Vega, G., 3547
Velicogna, A., 4958
Velytsky, V. F., 744
Venkiteshwaran, L. P., 269
Vera, A., 3947
Vercellini, G., 3990
Verdier, H., 4471
Vereshchagin, 2244
Verhoeff, F. H., 1508
Verlaine, L., 1068, 2544, 4976, 4977, 4978, 4979, 4980, 4981, 5902
Vermeylen, G., 5569
Vernon, H. M., 1586
Vernon, M. D., 3420
Vernon, P. E., 459, 1196, 1264, 2323, 5105
Verrier, M. L., 287, 288, 1630, 1631, 1632, 1633, 3072, 3073, 3074
Verrijp, C. D., 1478, 1479, 1480
Verschuer, O. v., 317
Versluys, J., 5810
Vertai, G., 1973
Vertes, J. O., 6177
Vervaeck, L., 3731, 4214
Vial, —, 1460
Vial de Sachy, H., 551
Viaud, G., 3075
Victoria, M., 428
Vidacovitch, M., 4471
Vidari, G., 3295
Vierkandt, A., 532
Vigevano, B., 5582
Villamil, P., 1978
Villarta, M., 3475
Vincent, D. F., 4713
Vincent, M., 289
Vinnikov, I. N., 5180
Vinogradov, M., 2251
Visser, H. L. A., 3476
Vita, A., 875
Vitale, S., 4905
Viteles, M. S., 180, 1007, 4723, 5649
Vitenson, I. G., 1375
Vivian, W. O., 4906
Viziana, A., 4958
Vlach, M., 793, 1927
Vlad, C., 2579
Vlassova, N., 4687
Voelker, C. H., 4215
Vogel, B., 290
Vogelsang, H., 5181, 6058
Vogl, C., 5028
Voigts, H., 2798
Volfis, A., 4617
Volgard, S., 4717
Volkelt, H., 5310, 5759
Volkovich, V. A., 5882
Volochov, N. P., 5327
Volshonok, O. S., 5845
Vorobiev, A., 2244
Vorwahl, H., 745
Vosswinkel, P., 533
Votaw, D. F., 2804, 3805
Vygotski, L. S., 925, 1887

Wachholder, K., 2980
Wadsworth, G. W., Jr., 1185, 3652
Waggoner, R. W., 4600
Wagner, H., 3076
Wagner, I. F., 1885
Wagner, L., 876
Wagner, M. E., 2294, 4760, 5253, 5254, 5255, 5256
Wagner, R., 5708
Wagner, R. P., 2457
Wahl, O., 291, 4539
Wakeman, S., 4689
Wald, G., 1509, 2029, 3077, 3404, 3497
Walker, G. F., 2252
Walker, H. M., 3816, 4779
Walker, R., 4056
Walker, R. N., 1965
Walker, R. Y., 1265
Walker, W., 1347
Wall, T. F., 3488
Wallace, R., 1888, 5268
Wallenberg, M., 181
Wallin, J. E. W., 4141, 4799, 5080, 5985, 6127
Walls, G. L., 1069, 2058, 2059, 2545, 5811
Walston, H. D., 1634
Walter, H., 2378
Walter, L., 3771
Walther, G., 4086, 5029
Walther, L., 632, 1802, 4724
Walton, A., 794
Walton, W. E., 1519, 3352, 6187
Walton, W. R., 5903
Walz, F. C., 5341
Wandeler, J., 795
Wang, G.-H., 5812, 5847
Wang, S. B., 1510
Wang, S. I., 1834
Wang, W. H., 2663
Wang, W.-Y., 5906
Warburton, F. L., 3931
Ward, H. F., 534
Ward, L. B., 3432
Ward, P. W., 6128
Warden, C. J., 1028, 1044, 1055, 1635, 4054
Wäre, M., 5813
Warner, C. G., 1586, 2220
Warner, G. W., 5760
Warner, L., 5487
Warner, L. H., 4054
Warner, S. B., 3732
Warner, W. J., 3249
Warnke, G., 292
Warren, N., 5399
Warren, N. D., 3468
Warren, W. P., 796
Wartena, L., 53
Wartman, W. B., 1636
Washco, A., Jr., 4690
Washburn, R. W., 3353
Washburne, A. C., 2111
Waskom, W. B., 1434, 1435
Wasowski, T., 4480
Wassiljew, M. P. K., 4540
Waterman, W. C., 5605
Waters, R. H., 3013, 4334, 4920, 4970
Waterston, D., 1511
Watson, G., 460, 1348, 1376, 1443, 3433, 3879
Watson, G. B., 461, 1197
Watson, M. E., 2295
Watson, N. A., 5182
Watson, W. E., 2296, 3250
Watson, W. F., 2747, 6084
Watts, J. W., 4039, 4055, 4409
Webb, L. W., 4761
Weber, —, 2412
Weber, A., 6179
Weber, C., 4725
Weber, C. O., 877
Weber, W., 5210
Webster, J., 1587
Webster, J. B., 2720
Wechsler, I. S., 80
Wedell, C. H., 4907
Wedell, G. H., 878
Wedemeyer, E. A., 5211
Wegel, R. L., 4394
Wegner, H., 429
Wegner, K., 3772
Weidemann, C. C., 514, 3296
Weihofen, H., 430
Weil, A., 431
Weiler, K., 4142
Weinberg, D., 1573, 1731, 4335
Weinel, H., 3216
Weingrow, S. M., 182
Weinland, J. D., 2732, 4716
Weinstein, A., 2379
Weisenfluh, L. A., 2269
Weiss, E., 2585
Weiss, L. A., 1889, 6108
Weiss, LaB. A., 3354
Weiss, P., 4056
Weissfeld, M., 3975
Weisz, F., 3773
Weitzenhoffer, T., 797
Weizsäcker, V. v., 360, 432, 3991
Welborn, E. L., 2458, 2966
Welch, H. J., 5212
Weld, L. D., 4908
Weil, J. v., 36
Weller, E. W., 2219
Weller, L., 5670
Wellman, B. L., 706, 6170
Wells, A., 4762
Wells, F. L., 1844
Welsh, J. H., 2060, 3523
Welton, A. D., 453
Welty, J. C., 3524
Wembridge, E. R., 2380, 5761
Wemmer, C., 2381
Wendt, G. R., 810, 830, 1008
Wenger, M. A., 1890
Wenrick, J. E., 1009
Wentscher, E., 3217
Wentscher, L., 3477
Wenzl, A., 3811
Werner, A. A., 1712
Werner, H., 798, 4395
Werner, K., 879
Wernstedt, W., 4636
Wertheimer, M., 2212
Werynski, H., 5326
Wers, R. v., 3444
Wesley, E. B., 633, 634
West, G. A., 4173
West, M., 4216
West, M. P., 3210, 3218
West, P., 1835
West, P. V., 6113
Westbrook, C. H., 4336
Westendorp Boerma, N., 535
Westerhoff, O., 462
Westermarck, E., 5644
Westphal, G., 536
Wetenkamp, L., 1966
Wever, E. G., 880, 1070, 1637, 5814
Wexbrug, E., 433, 537, 2213
Weyrauch, W. K., 2061
(W. G. L. C.), 1650
Wheeler, L. R., 3733
Wheeler, R. H., 799, 3297
Wheeler, V. D., 3733
Wheeler, W. M., 1071, 5904
Whelden, C. H., Jr., 635
Whetten, N. L., 318
Whipple, R. R., 4909
Whisler, R. G., 3951, 5351
White, K. B., 319
White, L. D., 5213
White, M. M., 1972
White, R. K., 3734
Whitehead, A. N., 5352
Whitehead, T. N., 4266, 4267, 5353
Whitehouse, A. G. R., 1010
Whitely, P. L., 463, 5415, 926
Whitford, W. G., 2753
Whitmer, C. A., 2920, 5400, 5650
Whitney, F. L., 1349
Whitney, L. F., 4558
Whittaker, M. L., 636
Whorley, K. S., 611
Wiecking, A. M., 5257
Wiederaenders, M. F., 915
Wiegner, A., 4355
Wieland, M., 3985
Wientge, K., 894
Wiersma, C. A. G., 4541
Wiersma, D., 464, 5645
Wiersma, E. D., 4166, 5081, 5106
Wiese, L. v., 538
Wieser, R., 5646
Wiesner, B. P., 20 2
Wiethold, F., 3086
Wigert, V., 1588, 2143
Wikerson, D., 5183
Wikker, J., 4396
Wilcox, W. H., 81
Wildenskov, H., 4618
Wile, I. S., 2297, 2625, 2646, 6129
Wiley, L. E., 1987
Wilhelm, W., 2946
Wilka, S. S., 2307
Willems, H. P. A., 1638
Willemse, W., 5986
Willey, M. M., 2298
Williams, C. A., 3878
Williams, D. C., 2871
Williamson, E. G., 3806
Williams, E. H., 2586, 5082
Williams, E. J., 6128
Williams, F. E., 5083
Williams, H. D., 3355, 1791
Williams, H. M., 3356, 5737, 6138
Williams, J. H., 637
Williams, K. P., 638
Williams, R. D., 1512, 5401
Williams, R. G., 803
Williamson, E. G., 3298, 3299, 4763
Willig, M., 3397
Willoughby, R. R., 2074, 4167, 4217
Wilska, A., 5813
Wilson, D. J., 4025
Wilson, E. B., 650, 2324, 4780, 4781
Wilson, F. N., 1589
Wilson, G. M., 3300
Wilson, M. O., 293, 2872, 4342, 5468
Wilson, M. T., 1969
Wilson, P. T., 5909
Wiltshire, H., 6148
Wimmer, A., 1266
Windle, W. F., 294, 4542
Wingfield, R. C., 5469
Winkelmann, H., 5214, 5215
Winkler, H., 2325
Winkler, K., 1289
Winslow, C. N., 295
Winsor, A. L., 183, 361, 3105
Winsor, C. P., 5765
Winter, J. E., 1011
Winterstein, A., 5030
Winterstein, H., 2103
Winzen, B., 1819
Wirth, W., 2413, 3384
Wise, C. T., 4248
Wiseman, E. G., 1967
Wishart, G. M., 5530
Wishart, J., 1851
Wisse, J., 5184
Witmer, H. L., 746, 2382, 4619
Wittels, F., 37, 362, 1674, 2587, 3576
Wittkower, E., 5494
Wittlig, A. H., 2420
Wittman, P., 434
Wittmann, M., 3640
Witty, P. A., 435, 3377, 4764, 5328, 5577, 6130
Wohl, H. A., 2546
Wohlfahrt, T. A., 3078
Wohlwill, H. E., 4910
Woitas, E., 5887
Wojciechowski, J., 38, 2253, 4726, 4727
Wojtusiak, R. J., 4543
Wolf, E., 296, 297
Wolfe, J. B., 2547, 3525
Wolfe, W. B., 1198
Wolff, E., 1513
Wolff, H. A., 4218
Wolff, W., 1675, 1732, 4578
Wolfle, D. A., 2214
Wolfle, D. L., 1267, 3014, 3735
Wolfle, H. M., 3015
Wolner, M., 881
Wolsky, A., 298, 3526, 4512
Wolters, A. W., 102, 3948
Wonderlic, E. F., 6083, 6134
Wood, A. B., 82, 4057
Wood, B. D., 3301
Wood, F. O., 3079
Wood, H. E., 3079
Wood, T. W., 1906
Woodall, C. S., 3548
Woodbourne, L. S., 3949
Woodcock, I. G., 3358
Wood-Jones, F., 3950
Woodring, M. N., 3302
Woodrow, H., 882, 2947, 3421
Woods, E. L., 1891
Woods, E. R., 539
Woodworth, R. S., 1928, 2873, 2874, 4356
Woody, C., 4219
Woodyard, E., 2796, 5413
Woolf, H., 5671
Woolley, L. F., 2144
Woolsey, C. N., 3527
Woolston, H., 6059
Wooten, B. A., 800
Worcester, D. A., 892, 1892
Worcester, J., 4781
Worley, L. G., 2063, 2064
Worster-Drought, C., 3641
Worthington, F. P., 2626
Wortis, S. B., 436
Wrede, W. L., 2065, 2066
Wrenn, C. G., 4308, 4728
Wright, H. M., 4691
Wrightstone, J. W., 2647, 4309

Wu, N. H., 1836, 2627
Wu, T. C., 1837
Wu, Y. Y., 1837
Wunder, W., 2067
Wünn, F., 3080
Wurmtöter, H., 2215
Wyatt, L. K., 1968
Wyatt, S., 4268, 4269
Wylie, W. G., 1894
Wynne, J. P., 4310
Wynne, W., Jr., 1790

Xirau, J., 1793

Yakovleva, E. K., 1097, 1145
Yang, S. Y., 1805
Yasuda, K., 5881
Yates, D. H., 4765
Yates, F., 4769
Yates, I. M., 2216, 3219
Yates, L., 4311
Yefroikin, Z., 1893
Yeich, E. B., 2269
Yepsen, L. N., 4782
Yerkes, R. M., 3528, 4544
Yoakam, G. A., 5672
Yoshida, E., 5881
Yoshioka, J. G., 1072
Yotumoto, M., 262
Young, B. M., 1859
Young, H. T. P., 1792
Young, I. C., 184
Young, J. C., 1198
Young, M., 1268
Young, P. T., 896, 1012, 3016
Young, W. C., 4960
Yourievitch, S., 1794
Yü, W. W., 2383
Yudelovich, R. Ya., 2486
Yudin, H. C., 1036
Yugelevski, A., 1013, 4620
Yurman, M. N., 169, 2509
Yushchenko, A., 4462, 4481, 4482

Zachry, C. B., 465
Zahn, W., 4545
Zalkind, E., 1290
Zalmanson, A. N., 185, 299
Zambaldi, G., 639
Zaniewska-Klawe, H., 4327
Zanker, A., 747
Zapan, G., 3303
Zapiola, J., 5570
Zartman, E. N., 5883
Zaur, I. S., 5807
Zawadovsky, B., 1639
Zawirska, J., 4270
Zeddies, A., 4859
Zeeman, C. W., 540
Zeisl, H., 2748
Zeiss, F. R., 4369
Zeldenrust, E., 2475
Zelenin, D. K., 5185, 5186
Zeleny, L. D., 4738
Zeligs, R., 2384
Zener, K., 3478
Ziegler, L. H., 1713
Ziegler, M., 437
Zieske, R., 2068
Zietz, K., 1929, 2153, 4328
Zigler, M. V., 1969
Zilboorg, G., 5987
Zillig, M., 541, 3359, 3385
Zimmer, O., 3017
Zimmerman, F. K., 4220
Zimmermann, H., 1169
Zimper, O., 2628
Zingerle, H., 748
Zinner, E., 883
Zinoviev, P. M., 4621
Zipes, A., 1090
Zitting, E., 5815
Ziveri, A., 3642
Zoll, P. M., 1970
Zollinger, R., 5848
Zondek, H., 363
Zotin, N. N., 1170
Zottermann, Y., 816
Zubin, J., 2805, 1377, 5682, 6135
Zucker, K., 3577
Zuckerman, S., 300, 1073
Zulliger, H., 5938
Zumbusch, L. v., 2921
Zwilling, E., 5849

SUBJECT INDEX

Abdomen reflex, 969
Ability and age, 1578
and attitude, wage, 3746
child, 3874
employment, 6067
engineering students, 619
grouping, 1835, 3802, 4311, 6123, 4749
measurement, 2806
opportunity, 3740
overlapping, 2324
patterns, 4797
special, 2347, 5702
testing, 6120
variance, work, 1275
work 3764
(See also *Aptitude*)
Abnormal child
criminal, treatment, 2136
ethnology and, 5589
psychology and literature, 1234
psychology, textbook, 2118
Abnormality, concept, 2621
famous Chinese, 2661
incidence, 3612
(See also *Psychiatry, Psychotherapy*)
Abstraction, 2931
monkey, 1056
rat, 1066
schizophrenia, 5497
wasp, 4976
(See also *Concept, Generalization, Thought*)
Acalculia, 423
Acceleration, college, 5246
Accent, French, and pitch discrimination, 5221
Accident, and alcohol, 561
disability causing, 6072
incidence and neurosis, 4712
prevention, 4711, 4715, 6060, 6063, 6069
child training in, 4754
highway, 6062
proneness, 3222, 4714, 6061
highway, 6071
railroad, causes, 4243
sun spots and, 3112
traffic, 2227, 2235
work, cinema, 4222
(See also *Chauffeur, Safety*)
Accommodation, 2428, 4377
convergence and, 1968, 2434
reflex, 79, 2507
distribution, 4906
lamprey, 3031
lens in, 847
middle life, 4880
old age, 5369
parasympathetic poison and, 1503
reserve, 3418
speed, 5804
theory, 1947
Accomplishment quotient determination, 5220
(See also *Scholarship*)
Acetylcholin and catatonia, 1116
Achievement, class size and, 1332
high school, 1829
knowledge of progress and, 921
Lincoln School, 6105
occupational interest and, 2793
reading, primary, 611
and remedial reading, 5957
success and, 5413
tests, 1809, 2271, 2784, 5669
age levels, 4758
item form, 2780
mechanics, 2746
music, 1268
Spanish, 1336
uniformity in high school, 622
vs. intelligence tests, 3306
(See also *Scholarship*)
Acid stimulation, barnacle, 206
fish, 5884
acquired characters, heredity of, 2549, 2554
Acquisitiveness, 178
Act, incomplete, 3000
structure, rat, 5454
Acta Inst. Psychol. Univ. Zagreb., 1900
Action, capacity for, 151
current, 3001
audition, 939
auditory, 3987
brain, 3986, 4410, 5825
cerebral, apparatus, 1904
C.N.S., 123
cortical, 2951, 4418
cortex, in vision, 5847
crayfish, nerve, 3509
depressor nerve, 2472
heart, 1589
nerve, 2956, 5834
movement, 3468
muscle, 2492, 4931
polarized, 2957
rat cortex, 4433
relaxation, 1568
visual, rabbit, 4417
voluntary contraction, 4477
potential, cortex, 5821
crayfish, 2537
frog, 5831
muscle, 167
nerve, 1539
retina, 109
retinal, cat, 112
sympathetic, frog, 127
vocabulary, 4680
Activity, castration and, rat, 2048
child, 2824
creation, infant, 708
drive, child, 5277
fish, embryo, 1021
heat production, nerve, 946
rat, heredity of, 2049
hormone and, rat, 3510
hyper-, 673, 686, 739
infant, 3354
learning and, rat, 1032
metabolism and, rat, 1622
muscle twitch, 171
programs, school, 5234
sound and, rat, 1048
spontaneous, 1058
temperature and, mouse, 2055
thyroid, rat, 174
(See also *Movement*)
Actor, personality type, 2151
Acuity, bee, 297
blue light, 3414
brightness and, chimpansee, 3513
changes, vision, 3913
child, 2840
dim and bright light, 40
dominance and, 2884
Drosophila, 3077
illumination, 81, 1448
intensity and, *Drosophila*, 3497
light and, 857
pigeon, 2027
test, standard, 3929
stimulus distance and, 846
ultra-violet and, 2906
visual, 41, 2877, 5763
other modes and, 832
test, 4871
Adaptability and age, 1368
Adaptation, 1932
apparatus, 5738
heat pain, 3944
chimpansee, 4544
cutaneous, frog, 64
dark, 3904, 3932
form discrimination, 2920
fovea, 5770
light intensity and, 5373, 5374
retinal areas, 3404
fish, 3068
stimulus size, visual, 5779
taste, 828
Volvox, 3048
warm spots, 49
(See also *Sensation*)
Adapter for micro-recorder, 1906
Addressing, techniques, 556
Adenoids, audition and, infants, 813
IQ and, 3309
music perception and, 823
Adler, critique, 4073
Adjustment in adolescence, 734
birth rank and, 2335
child, 1868, 4818
home and, 5573
parent and, 2146, 3348
and behavior, 746
teacher personality and, 3275
college, 1331
freshmen, 2763
crippled, child, 5309
delinquent girl, 4171
difficulties, child, 2373
disturbance, child, 725
emotional, and intelligence, 5688
superstition, 3702
group and individual, 5153
handedness and, 3449
high school, 3154
in hypophrenia, 1107, 4135
industrial, 3761
inventory, 4624
lack of, 2189
parent vs. child, 2145
problems, student, 447
questionnaires, factor analysis, 1192, 5096
rat, 2526
reformatory, prediction, 6022
school, 3254, 4753
to pupils, 1823
social, 6005
student, 3286, 3561
teachers' attitudes, 4294
visual, 2915
vocational, prediction, 3791
(See also *Emotion, Instability*)
Adolescence, 1880, 3334, 3831, 3843, 3869, 4293, 4917
adjustment in, 734
angle judgment, 3387
attitudes in, 5326
chronaxy in, 2355
cinema in, 1206, 5600
conscience in, 2332
crime in, 1231
"crush," 4815
delinquency in, 3321
disturbances, 1852
girl in, 1386
home and personality, 5700
idea type, 1403
introspection, practice in, 2841
leadership, 5316
mental hygiene, 5083
misdemeanor, 3856
moral insight in, 2334
judgment, 5599
in mountains, 3839
nuisance in, 3857
personality rating, 4629
play in, 3855
problems, 6172
proletarian, 3315
religion, 745
social development, 6151
teacher and, 2284
textbook, 2338
training, 6155
vocational attitudes, 4814
choice, 3861
writing vocabulary, 5121
(See also *Child, Puberty, Youth*)
Adrenal cortex, function, 1559
growth and, rat, 2031
glands and estrus, rat, 1561
Adrenalin, catatonia, 1116
nervous discharge, 1995
work and, 1567
(See also *Endocrine, Gland*)
Adrenals, conditioning and, 2509
neurasthenia and, 5939
Adrenin and behavior, cat, 4534
Adrian, E. D., work of, 974

Advertising, 4717, 5190, 6079
effects, 4706
engineer in, 3738
film, 4238
intimidation in, 4257
memory in, 3756, 4720
psychoanalysis and, 1274
(See also *Placard, Sales*)
Affect in testimony, 5820
(See also *Emotion, Excitement*)
Affection, memory and, 2451
Affectivity, type, 3676
Africa, intelligence test, 4201, 4202
survivals, 4187
testing in, 4200
After-image, 1937, 4407
in brief illumination, 2912
color, and personality, 2909
depth perception, 3915
in flicker, 2913
Age, ability and, 1578
adaptability and, 1368
of college student, effects, 5233
difference, conservatism, 1202
motor learning, 988
skill learning, 1571
handwriting, left-hand, 2663
intelligence and, 3830, 5687
freshman, 5241
vs. intelligence differences, siblings, 3531
interval and resemblance, siblings, 3532
judgments, 5150
at marriage, 1750
middle, 3644
perception and, 5382
personality and, 1191
regression, hypnosis, 1096
school success and, 2277
strength and, 4024
suggestion effects, 3568, 3569
youthfulness and, 2205
(See also *Involution, Senility*)
Ageusia, traumatic, 4110
Aggression instinct, 3446
Aggressiveness, rat, 1594
Agnosia, chromatic, 1158
drawing disturbance, 383
Agriculture, industrial psychology in, 3747
work rhythms, 1280
Alaska, scholarship in, 3679
Alcohol and automobile drivers, 561
effects, 4064, 4561
on chronaxy, 4423
on sensitivity, 4375
intoxication tests, 5921
oxygen and, 2559
responsibility and, 5117
retention and, rat, 1067
salivation and, 183
Alcoholism, 5043
anoxemia and, 993
constitution in, 5941
etiology, 1165
hallucinations, 370
labyrinth in, 1683
senile, 4582
treatment, 2075
(See also *Dipsomania, Intoxication*)
Aleut, ability, 2669
child, achievement, 3679
intelligence, 478
Alga, pH and movement, 199
Algebra, predicting success in, 3252
teaching, blind, 6100
test, arrangement, 3776
Allergy, neurasthenia, dyspepsia, 5542
All or none principle, 2473
Allport ascendance scores, self interest in, 660
Alternation ability, 5432
Altitude effects in youth, 3839
reaction time, 1990
Ambiguity in apparent movement, 850
Ambiguous figure and personality, 5362
Ambivalence, 83
Amblystoma, nerve segmentation, 2023
nerve system growth, 1593
transplant, 2039
Amblyopia, 4393
treatment, 4895
Ameba, electricity response, 70
light response, 255
movement, 254
oxygen effects, 2032
American Psychological Association, meeting, 1915, 2864
Amnesia, 5033
treatment, 2115
(See also *Aphasia*)
Amnion, bird embryo, 4497
Amniotin and activity, rat, 3510
Amphibia, growth developments, 227
heart, nerve-free, 4507
(See also *Amblystoma, Frog, Newt, Salamander*)
Amplifier, cerebral action currents, 1904
Anachronism in art, 6045
Anal element in paranoia, 2078
Analgesia, hysterical, 420
Analogy tests, 1375
Analysis of variance, 2310
Anarthria, 2606
Anemia, cortex activity in, 4432
psychosis, 2141
Anemone-crab, symbiosis, 3029
Anesthesia, effect on reflex extinction, 967
hysterical, 420
sensory nerves, 5841
superficial, 4874
theory, 2571
Anger, child, 5321
students, 888
Angle estimation, 45
adolescent, 3387
tactile-kinetic, 808
Animal behavior, 186, 1591
review, 300
study, 5890
symbolism, 4070
flight reaction, 4037
fight, threat in, 235
intelligence, 552, 1062, 2052, 2056
review, 2017
language, 3669
learning, 1016, 2536
marine, chemotropism to acid, 212
mind, 1635
nocturnal habits, 4492
orientation, 1606
psychology, 214, 1068
of Plutarch, 210, 2850
social behavior, 2540
phenomena, 1615, 6047
society, 5904
(See also *Chordate, Comparative, Invertebrate, individual phyla*)
Annelid larva, movements, 240
(See also *Earthworm, Leech, Nereis, Worm*)
Annoyance and emotion, 5403
movement and, 2481
student, 1383
Anosmia, traumatic, 4110
Anoxemia and alcoholism, 993
(See also *Atmosphere*)
Ant behavior, 4973
colony forming, 216, 1071
division of labor, 4040
learning, 4529, 4530
ocellus, 261
orientation, 208
parasitism, 3064
stridulation, 2047
Antagonism, muscles, 4025
Antennule regeneration, crab, 4512
Anthropology, 3192
law and, 6027
mental, 486
principles, 6008
psychoanalysis and, 522
psychology and, 518
tasks, 492
student, 582
(See also *Africa, Aleut, Bantu, China, Chuvash, Culture, Drum, Easter, Ethnology, Eskimo, Exogamy, Exorcism, Folklore, Indian, Jew, Negro, Pole, Primitive, Race, Shamanism, Totemism*)
Anthropometry, woman, 976
Anticipation in conditioning, 5879
errors, learning, 4456
learning, 1976
maze, 5450
mouse, 4502
Anxiety dream, 5481
examination, 5019
neurosis, 2126
respiration change, 1167
states, 5559
in tests, 4725
in woman, 5060
(See also *Emotion, Fear*)
Ape and child, 1042
pyramids and reflexes, 3512
respiration, 4489
Aphasia, 1114, 3703, 4139, 4600
Gestalt in, 3581
learning to read, 1704
localization, 391
motor, 2606
theories, 1686
(See also *Acalculia, Ageusia, Agnosia, Amnesia, Apraxia*)
Apparatus, adaptation, 773, 5738
animal discrimination, 3381
attention, 2253
tester, 2861
auditory, 4349
ataxiameter, 4346
blood pressure, 3957
balanced circuit, 34
cerebral action current, 1904
chronograph, 35, 792
chronoscope, 763, 1918, 3373
ciliary movement, 161
cinematoscope, 785
classification, 2872
color photography, 5735
vision, 762
conditioning, 5734
contact breaker, 1429
current stabilizing, 5341
distributed attention, 3895
dynamograph, 38
electroscope, 800
ergograph, 5754
extirpation, 4922
eye movement, 3885
camera, 794
finger maze, 5351
galvanic reflex, 5330
galvanometer, 2849
head clamp, 5749
knee jerk, 28
lamp, variable, 5740
maze, 1914
stylus, 5335
unit, 4342
motion study, 4248
motivation, rat, 5331
music recording, 6054
nerve stimulation, electrical, 3440
orientation, 3361
oscillation recorder, 782
oscillograph, 10, 23
photoptometer, 3888
plethysmograph, 3
pupil photography, 5797
pursuitmeter, 3894, 3899
rate change recording, 3370
reaction time, 25, 3226, 5329
recorder adapter, 1906
relay, 3364
respiration, 15
measurement, 5747
revolving chair, 3901
running wheel, 1058
selecting and timing, 2401
sound recorder, 4353
spectacles, 5743
speech recording, 4211
stereoscope, 783, 2407, 4848
stereoscopic cinema, 11
subcostal angle measurement, 2853
switch, 1926
tachistoscope, 761
tambour amplification, 5750
tau effect, 5334
test, 1272
timer, 26, 1921
tone integrator, 774
tonoscope, 5340
weight lifting, 1496
Apparition, 5025, 5487
Appearance, orientation and, 2416
Appetite, 996
play, sleep, child, 637
(See also *Diet, Feeding, Food, Nutrition*)
Application blank, photograph, 1278, 5648
for position, training in, 4305
Apponyi, A., obituary, 753
Appointment of college teachers, 630
Apport, 4995, 5028
Appreciation in art, 1223
child, 5301

cinema, 1303
Jaensch, E. R., 3898
literature, 2708
music, 2195, 2709
of psychotics, 1708
(See also *Art, Beauty, Esthetics*)
Apprehension and eye movements, 3213
of music, 1264
visual, in reading, 496
Apprentice placement, France, 2225
test, railroad, 5204
selection, 3772
Apprenticeship, 2731
Approval, child, 3359
Approximation in computation, 4779
Apraxia, 1699
eyelid, 417
variety, 428
(See also *Aphasia*)
Aptitude, 2347
dressmaker, 2250
Japanese, 2711
measurement, 2806
technical, 2505
test, language, 2790
scholastic, 1362
technical, 1849
testing, 3230, 3232
in industry, 576
vocational, tests, 3672
Arachnid, learning, 5886
Arbacia, color change, 2041
Archery, practice, 4002
Archives of Speech, 1913
Archivos argentinos de psicologia, 1920
Area and hue, 5379
striata, subdivisions, 5839
Argentina, journal, 1920
Argot, delinquent, 2706
Argument and attitude, 3692
Arithmetic disability, 2792, 2794
drill, 4271
home study, 5250
galvanic reflex in, 4021
problem solving, 610
sex difference, 3799
teaching, 589, 3300, 3258
entelechy, 3390
Arm movements, infant, 1885
Army tests, 544
Arranging, by child, 5312
Arson and witchcraft, 473
women, 2682
Art, 5154
ability, correlates
child, 6175
student, 6018
measurement, 1227
anachronism in, 6045
appreciation, 1223
child, 2357, 5301
balance, 3183
environment and, child, 6165
evolution, 4213
as experience, 3161
genius in, 3187
imagination and, 4186
child, 6147
magic and, 5592
personality and, 465
play, child, 6145
preference, high school, 5252
primitive, 499
psychoanalysis and, 4560
psychology and, 5135
psychotherapy and, 5953
race difference, 1261
reality in, 5174
of schizophrenics, 1692
tests, critique, 2694
(See also *Appreciation, Beauty, Drawing, Esthetics, Sculpture*)
Arteriosclerosis and sleep, 1153
Artery reflex to chemicals, 5862
Arthropod, brain, 3499
falling reflex, 3025
(See also *Arachnid, Insect, Isopod, Limulus, Spider, Trilobite*)
Arthur vs. Binet test, 3307
Articulation, x-rays, 4658
Artist, handwriting of, 1242
Ascendance, child, 5308
scores, self interest in, 660
"As if" philosophy, 795
Assimilation, immigrant, 1761
Association, age and learning transfer, 1991
strength and, 3960
transfer of learning and, 893
capacity, 4401
controlled, 903, 2937
feeling, movement, 3953
foundation, 5855
ideas in psychosis, 1157
inhibition and, 924, 2455
in lie detection, 1011
literary criticism and, 4845
mediate, 917
neurotics, 4615
psychology, self, 31
remote, 2981
speed and reading rate, 5643
test and Bernreuter scale, 4158
in delinquency, 3684
theory, modern, 966
time-color, bee, 3505
mood and, 3142
Astacus, nervous system, 2543
Astereognosis, hysterical, 420
Asthma, psychogenetic, 395
Astigmatism, 845
Astonishment, 4204
Astrology, 5489
Ataxiameter, 4346
Athletics, character and, 2269
effects, 2004
measurement in, 2006
girl, personality, 3143
physiology of, 2977
scholarship and, 1811
vocational success and, 3290
(See also *Football*)
Atmosphere and work, 2219, 2220
(See also *Anoxemia*)
Attention, apparatus, 2253, 3895
aviator, 547
curve, 87
devices in industry, 557
distribution of, 1526
disturbance, 3967
eye-dominance and, 2476
growth, 925
handedness and, 2477
intelligence and, child, 728
nursery school, 4800
position and, 1520
report primacy and, 88
self-consciousness and, 3425
test, 95, 4404
tester, 2861
weakness, hemianopic, 124
to work, 3428, 4266
(See also *Awareness, Distraction*)
Attitude, 2634
ability, wage, 3746
adolescents, 5326
adult and child behavior, 2837
argument and, 3692
association and, 924
toward athletics, 629
body, child, 5284
capillaries and, 2445
changes, 2633
child, 2375
mother, employment, 4820
cinema and, 1245, 1256
death and sex, 6050
on delinquency, 2668
development, child, 5701
evolution, teacher, 4285
factory worker, 3770
future, 2637
Indians, 513
vs. information, race, 3714
institutional, change, 4206
intelligence and, student, 1296
international, education, 3778
modification of, 5635
parent, 2336
in schizophrenia, 4115
in perception, 4910
personality testing, 5105
toward personnel, 4701
physical handicap, 445
political, measurement, 1738
problem boys, 5314
pupil, 2794
questionnaire, reliability, 5630
race, and knowledge, 3670
negro child, 5588
student, 5615
in research, 760
review, 1749
religious, chance, 5628
scale construction, 1358
toward high school, 623
scoring, 6031
use, 1219
scaling, 3812
slander, 2216, 3219
school, 603
social, graduate women, 466
religion and, 4220
sibling resemblance, 1187
slaves, 5638
socio-economic, high school, 636
after sociology course, 625
student, 6011
depression, 579
studies, 460
teacher, behavior problems, 4730
teaching, 6106
therapy, child, 4732
test, biology, 6098
item form, 1760
unemployed, 2728
unemployment, 3748, 5197
toward U. S., Filipino, 5155
value, sex difference, 4153
war, and politics, 4180
worker, 3744
(See also *Conservatism, Personality*)
Attribute, tonal, 5397
nature of, 2396
Audition, 65, 2441, 5397
action currents, 939, 3987
acuity, child, 4335
adenoids and, 813
aids to, 2892
apparatus, 4349
bird, 4540
by bone conduction, 4358
cat, 3491
guinea pig, 1037
chimpanzee, 1025, 4493
cochlea phenomena, 5787
response, 5788
cortex localization, 4045
defects, 5380
from noise, 4905
deficiency and motor performance, 852
discrimination and light, 2888
disorders, 1449
dog, 1027, 3483
x-ray effects, 3493
electric effects, 1951
phenomena, 5773
response of cochlea, 1942
fatigue, 4898
fish, 3053
high tones, 4389
hygiene of, 73
imagery, child, 1399
infant, 4823
insect, 190, 244, 1070, 1637
intensity, 4361
discrimination, 5803
irradiation, child, 692
localization and pitch, 5357
minnow, 3032
movement, 831
nerve excitation, 4394
responses, 5814
supply, 3437
system, 5802
physiology, 4881
psychosis, 1148
reflex, pigeon, 1006
round window function, 811
school, 5182
sensation time, 4363
sound and, guinea pig, 1039
stimulation impairment, 5780
stimulus correlates, 5766
in tactile recognition, 802
theory, 880, 3388, 3907, 3927, 5789
time perception, 3920
touch reception and, 818
recognition, 5354
vibration, 3918
vs. vision, advertising, 4720
(See also *Clang, Cochlea, Corti, Deafness, Ear, Intensity, Loudness, Resonance, Sound*)
Aura, 5003
Authority and child reaction, 1407

Autism, 3589
Auto-erotism, aggressive, 1652
Automatism, 170, 1684
epileptic, 2129
mental, 5535
movements, 2007
Automobile accidents and alcohol, 561
driving, night, 5211
reckless, 6074
tests, 6068, 6070
vision in, 6073, 6075
time studies, 563
(See also *Chauffeur, Traffic*)
Autonomic and blood content, 4420
cortical conduction to, 5836
summation, 951
hypothalamus and, 4429
nose and, 1986
representation, cortex, 4409
system, nomenclature, 1983
Autotomy, Crustacea, 3079
earthworm, 243
phasmid, 4980
of tail, mammal, 247
(See also *Regeneration*)
Average, meaning, 2801
Aviation, illusion in, 1507
vertigo in, 4948
vision standards, 1797
Aviator, attention, 547
color testing, 809
emotion in, 884
labyrinth reflexes, 970
selection, 548
sensory qualifications, 545
study on, 1796
tests, 1271
Awareness in learning, 2454
(See also *Consciousness*)
Axiom, parallel, 754
Axon responses, 930

Babinski, J., obituary, 2385
Balance in art, 3183
compositional, child, 6144
Bantu, culture and personality, 5604
population phenomena, 2204
Barbital and learning, 2040
Barnacle, acid stimulation, 206
sensitivity, 2520
Basic English, 2697
Basilar membrane function, 3927
Bear, cortex, 3030
Beauty, feminine, 2587
fertility and, 2675
preservation, 2205
(See also *Appreciation, Art, Esthetics*)
Becher, E., obituary, 3891, 4343
estimate, 5741
Bee, adaptability, 4979
behavior constancy, 2525
chemical receptors, 3050
color vision, 4513
figure intensity and quality, 233
flicker frequency and intensity, 296
light reaction, 1018
response, 1629
memory and narcosis, 4524
ocellus, 261
vision, 298
olfaction, 263, 292
orientation, 237
place memory, 4036
sugar inversion, 2034
taste and food value, 290
time and color associations, 3505
memory and, 291, 4539
visual acuity, 297
field, 223, 234
-wolf, orientation, 285
Beetle, flour, habits, 3507
learning, 5887
larva, behavior, 187
tropism, 3071
Behavior, 1438, 4856
constancy, bee, 2525
disorders, temperament and, 1727
determinants, 5342
development and cord, 5422
myelin, 4421
eye and, lizard, 3072
inventory, child, 1858
nerve system and, *Amblystoma*, 2519
personality defects and, school, 3866
problems, 1868
child, 1894
teacher attitudes, 4730
treatment, 2836
study, 2387, 2400
specificity, 3320
Behaviorism, 1420, 1430
critique, 2867
purposive, 2865
volition and, 5440
Beitr. z. Charakter. u. Persönforsch., journal, 2386
Bekhterev, V. M., brain of, 4928
Belgium, crime control, 3731
Belief, evolution, student, 4735
moral, college student, 2666
religious, 1737
(See also *Opinion, Prestige, Radicalism, Rumor*)
Belonging, principle of, 2447
Benzene poisoning, conditioning to, 130
Bergson, psychology of, 3374
Bernreuter inventory, 2632
profiles, 1177, 1189
scale and association test, 4158
validity, 4163
Beta examination, revised, 5686
Bibliography, child delinquency, 2152
welfare, 5276
education, 2753, 2773
experimental esthetics, 1747
foreign education, 577
Höffding, H., 3377
lens chemistry, 4893
minority education, 2761
occultism, 2081
parent education, 4282
philosophy, 5346
poetry, 5111
psychiatry, 2132, 5556
psychology, 3367
speech defect, 5124
Bilingualism, 2167, 2766, 2816, 3346, 5114
intelligence and, 1736
measurement, 5614
tests and, 2754
Binet va. Arthur test, 3307
8- and 9-year tests, 4799
test, revision, 1365
vocabulary difficulty, IQ and, 1367
Binocular phenomena, investigation, 2407
summation of brilliance, 1474
Biochemistry and personality, 3663
Biogenetic law in psychiatry, 4585
Biography, Ferrari, G. C., 1426
Freud, 37
heredity in, 3084
infant, 2835
Kiesow, 3887
Lange, C., 3247
Masuda, K., 791
Mesmer, 1909
Müller-Lyer, F. C., 1923
Münsterberg, H., 1919
pathological, 443
psychoanalysis and, 2079
psychological, 6030
Biology, attitude test, 6098
Gestalt in, 1911
social, 1755
Biometry, race, 1243
Biophysics, concepts, 5344
Bird, audition, 4540
castration and sex activity, 203
conditioning, 3018
display, 4962
embryo activity, 2035
heart and amnion, 4497
flight, 229
nerves in, 2528
form discrimination, 1060
forced movements, 1050
migration, 3069
language value, 194
migrations, 1610
muscle activity and blood supply, 3521
nest behavior, 1043, 1045
nerve impulse conduction, 2960
olfaction, 4545
sex activity and castration, 202
song, recording, 3896
weather and, 1014
(See also *Goldfinch, Lark, Pigeon, Starling*)
Birth, child attitude toward, 3333
control and mental hygiene, 4985
injury, case, 3121
lesion, 1142
defect and physical training, 3122
month, eminent men, 4991
intelligence and, 1370
weight and, 5722
in myth, 5610
order and intelligence, 1081
and marriage selection, 5131
premature, and hypophrenia, 5971
rank, adjustment and, 2335
delinquency and, 2163, 2707
rate, differential, 1642, 1644, 1645, 1764
(See also *Fertility*)
Bisexuality, 2587
Bladder control, child, 5724
Blame in learning, 5405
(See also *Punishment*)
Blind, chronaxy, 4942
deaf, education, 1804
drawing of, 3742
orientation, 3361
sensations, 3394
visual phenomenon, 1456
Blindness, adjustment in, 46
causes, 1956
CO poisoning, 80
education in, 3033, 6100
hallucinations in, 5551
hereditary, 1935
hysterical, 409, 1455, 2425
conditioning in, 810
imagery in, 4403
maze learning in, 4438
test in, 4792
partial, incidence, 3393
photopsin in, 39
preschool child, 3865
reading habits in, 150
scholarship in, 4879
sensory compensation, 1948
subjective effects, 841
in U. S., 4862
Block construction, child, 670
Blood calcium, delinquents, 2693
emotion and, 84
cells and emotion, rabbit, 4397
change in emotion, 1518
content in emotion, rabbit, 2442, 4044
groups and race, 1734
pressure and feelings, 3957
labyrinth and calorization, 4956
music effects, 4690
reflex control, 144
symbolism, 1672
supply and muscle activity, bird, 3521
type correlates, 2495
viscosity in excitement, pigeon, 5465
volume, measurement, 3
(See also *Capillaries, Circulation, Leucocytes*)
Blue light, acuity in, 3414
Body attitude, child, 5284
human, center of gravity, 2496
image, disorder, 1699
symbolism, 5928
temperature, infant, 5704
type, psychoses, 1126, 2143
weight and, 1351
(See also *Constitution, Kretschmer*)
Bone conduction, audition by, 4358
development and emotion, child, 2372
Book for child, 1378
reviews, analysis, 5347
Boy, delinquent, personality of, 438
developmental age, 4803
friendships, 3335
in industry, 2742
muscle sense, 1495
problem behavior test, 2641
capacities, 5314
suggestion effects, 3568
working, 4295
Box stacking, raccoon, 4488
Brakeman tests, 4699
Braille reading, 5791
Brain, acetylcholine, 113
action current, 3986, 4410, 5825
arthropod, 3499
of Bekhterev, 4928
chimpanzee, 4929
cord and, frog, 4923
conformation, 4427, 4428
development and behavior, 125
rat, 126

evolution, 104, 944
fields, 5838
frog, olfactory placode, 5849
functions, 2950, 3990
in hypophrenia, 1131
injuries, 2140
rat fetus, 5828
work in, 2011
intelligence and, 3579
learning and, 5439
lesion and conditioning in monkey, 279
learning and, rat, 1987
tonus and, 157
dog, 139
touch recognition, 1510
localization,1 24, 931
mind and, 928, 3443
pathology, 4924, 5064
radiant effects, 5421
reflex and, frog, 4046
scholar, 1979
secretion, fish, 2050
Sinanthropus, 1640
sleep-producing substances, 345
structure in hypophrenia, 1106
subcortical centers, 4930
sulcus lunaris incidence, 4926
taste center, 3441
tissue extirpations, 5423
weight, intelligence and, 2461
x-ray effects, 4422
(See also *Cerebellum, Cerebrum, Corpus, Cortex, Epiphysis, Decerebration, Deiters, Forebrain, Frontal, Geniculate, Hemisphere, Hypothalamus, Hypophysis, Nerve, Sulcus*)
Brightness and acuity, chimpansee, 3513
color and, 4867
discrimination and, 825
hedgehog, 4500
minnow, 4533
equivalence across modalities, 1940
function, eye, 5371
hue and, 5401
vs. intellectual maturity, 5223
judgments, 853
limen, 3917
in pressure, 3930
pupil reflex and, 3930
reflection and, 1946
Rorschach test, 3645
threshold, 840, 1930
differential, 869
vision, butterfly, 3040
(See also *Illumination, Light*)
Brilliance, binocular, 1474
Broadcast vs. lecture, psychology, 13
Bromide delirium, 403
Business psychology, 4221
rationalization, 5207
(See also *Partnership, Trade*)
Butterfly, brightness vision, 3040
form perception, 2033
lega, sensitivity, 188

Cadaver in magic, 4185
Caffein and salivation, 361
Calcium, blood, in delinquents, 2693
emotion and, 84
sleep and, 2094
quality and, 1663
Calculus, mathematics used in, 3261
Camera, eye movement, 794, 3885
Capillaries, attention and, 2445
in child and hypophrenia, 3862
microscopy in adolescents, 719
psychosomatic relations, 3995
Carbohydrates, in fatigue, 3996
Carbonic acid and fatigue, 19 '5
Card, business, 3737
sorting, test, 4465
Care, measurement, 4146, 4698
Carotid ganglion, reflex, 5860
Carus, C. G., philosophy, 4843
Case history, reliability, 5627
Castration and activity, rat, 2048
complex, girl, 3550
effects, review, 5065
fear, woman, 3102
sex activity and, bird, 202, 203
Cat, adrenin and behavior, 4534
audition, 1037, 3491
conditioned motor reflexes, 4439
cortex control of movement, 2511, 2533
excitability, 3024
localization, 4045
deafness and eye color, 5461
discrimination apparatus, 3381
embryo, reflex, 4542
fetus, behavior, 2022
form discrimination, 1059
galvanic reflex, 4034
geotropism, 3065
hypothalamus lesion, 4414
and temperature control, 5416
labyrinth and intestine movement, 4042
phobia, 3554
prenatal behavior, 294
pupil contraction, 4443
pyramidal lesions, 1046
red nucleus, 4415
retinal action potential, 112
righting reflex, 5889
vibrissae, 2051
visual discrimination, 5897
Cataract changes, vision, 3913
operation, entoptic phenomena and, 1453
visual control and, 5775
Catatonia, 3580, 5545
cerea flexibilitas, 5525
chronaxy in, 3130
experimental, 1116
extrapyramidal reflexes, 422
metabolism in, 5530
reflex latency, 5516
simulation in, 1680
sleep posture, 5517
Cause, 32, 1427, 5339
Celibacy, woman, 4649
(See also *Marriage*)
Cell implications, 5344
Center of gravity, human body, 2496
subcortical, 4930
Centrifugal tendency, maze, 4484
Cephalic index and emotion, 5404
endocrines and, 1994
Cephalopod eye, 1632
retina, pH, 4051
Cerea flexibilitas, 5525
Cerebellum and cerebrum, cat, 3979
reptile, 230
Cerebral artery ligation, monkey, 4055
Cerebrospinal fluid pressure, 1013
Cerebrum and cerebellum, cat, 3979
Chinese, 5837
conditioning and, dog, 176
cortex, man, 931
dominance, 950, 1465
in learning, 898
perception and, 839
sensation and, 942
electric phenomena, 1548
function, fish, 1604
frog, 2018
hemisphere, extirpation, 935
intradependence, 1467
localization, 945
in reflexes, 1565
resection, 3985
Certainty, religious, and denunciation, 6038
Chair, revolving, 3901
Chameleon eye, 1621
Chance correction, test, 5271
Change measurement, 1376
attitude, through social psychology, 5652
work and output, 360
Character analysis, 5086
athletics and, 2269
changes, schizophrenia, 4591
child, 2156, 3870, 5699
components, 1722
concepts, 5093
dialectic study, 4157
delinquency and, 1792
disturbance, child, 1871
education, 1311, 2282, 2286, 2254, 2264, 2273, 2275, 3253, 3775
research, 621
Russia, 3294
efficiency and, 1285
environment and, 456
factor analysis, 4159
formation, 4143
group and, 4156
handwriting and, 449
instinct and, 5104
judgment and fear, 1874
Latin and, 2274
modification and culture contact, 5578
pathology, 4625
physiognomy and, 2640
recognition, 2153
self rating, 4154, 4155
study, 440, 1188, 5098, 5990
difficulties, 1729
of Klages, 5582
treatise, 4337
teaching, 1803
test, 1171, 1197
child psychiatry, 5536
review, 5579
traits, 1731, 5084
twins, 1643
types, 1715, 5088
child, 3647
social psychology and, 1723
woman, 3091
(See also *Personality, Temperament*)
Charity, 3216
cases, IQ, 4681
Chauffeur, reaction, 4227
time, 4223
test, 4228
(See also *Accident, Automobile, Highway*)
Cheating, delinquent boys, 6025
Chemical effects, vasomotor, 4445
reflex, arteries, 5862
senses, 5771
bee, 3050
crab, 2065
fish, 2066
transmitter, sympathetic, ganglion, 1984
Chemotropism to acid, marine animals, 212
Chemistry course, 5248
success prediction, 5664
taste and, 52
Chiasma lesions, 2879
Chick, delayed incentive, 4057
heart rate, drug effect, 4001
isolation and social behavior, 1054
maturation and practice, 2513
maze length and learning, 1055
visual illusions, 295
Chicken, food behavior, 5455
learning, 4026
Child abilities, 3874
activity drive, 5277
adjustment, 1868
difficulties, 2373
home and, 5573
parent and, 2145, 2146, 3348
parent behavior and, 746
teacher attitude, 4294
personality, 3275
anger, 5321
vs. animal sexuality, 2576
ape and, 1042
arranging, 5312
art ability correlates, 6175
appreciation, 5301
artistic, environment, 6165
play, 6145
ascendance, 5308
attendance, cinema, 4806
attitude toward, 2375
death, 3350
development, 5701
mother employment and, 4820
therapy, 4732
audition irradiation, 692
auditory acuity, 4335
imagery, 1399
Australian, intelligence, 3821
backward, 408
in high school, 3798
social position, 5721
behavior, 2341
adult attitude and, 2837
check lists, 1891
constancy, 2326
disorder, 3866
inventory, 1858
pictures, 1409
problems, 1894, 3878
bladder control, 5724
blind, education, 3933
reading habits, 150
block construction, 670
body attitudes, 5284
book, 1378
bright, education, 5302
capillaries in, 3862
care, 722, 2380
textbook, 6168

cerebral palsy, 4819
character, 2136, 3870, 5699
disturbance, 1871
type, 3647
Chuvash, development, 5287
intelligence and status, 3712
cinema and, 5703
effects, 5728
social attitude and, 714
clinic, 2349
follow-up, 2166
color harmony, 6178, 6182
preference, 5705
compliance, 6180
compositional balance, 6144
unity, 6181
conditioning, 696, 699, 700, 701, 703, 712, 713, 715, 744, 2494
induction, 2503
inhibition, 2485
review, 717
conduct and illness, 695
problem, 5320
conference, 3834
confidence, 6179
congress proceedings, 1886
construction, 3850
coordination, 6142
correspondence, 3262
country, characteristics, 1308
court, statistics, 2719
cranium trauma, 5569
creative, 5310
imagination, 6147
crippled, adjustment, 5309
personality, 2149
cry, 1881
day-dreams, 4810
deaf, 67
mute, behavior, 3868
religion, 6167
deafness incidence, 1457
death, attitude, 2350
delinquency, 476, 521, 1212, 1236, 1254, 1255, 2203
delinquent, characteristics, 1745, 2651, 3168, 3211, 3833, 4683, 4818
bibliography, 2162
factors in, 4640
handwriting, 1180
immigration and, 1199
suggestibility and, 2650
vision, 4892
demoralized, 389
development, 674, 1338, 1393, 2820, 4593, 5719, 5324
constancy, 5323
diary, 6159
prediction, 681
sociology, 6173
difficult, conditioning, 697
punishment, 4281
discipline, 5714, 5716
diseases and nursery school, 2844
Oedipus complex and, 349
docility and inhibition, 1883
drawing, 1247, 3195, 3336, 5305, 6149
dreams, 2370
guilt in, 1668
dull, follow-up, 1823
eating, 2577
education and disease, 3853
eidetic imagery, 3330
emotion, adjustment, 2827
bone development and, 2372
effects of cinema, 1390
study method, 5327
empathy, 3352
environment, 5274
personality and, 5293
esthetics, 2657
ethics, 3343
exceptional, education, 1320
review, 4813
fairy tale and, 2833
family and, 1203, 6146
familiarity and preference, 2357
fantasy, 684, 3845, 5315
fears, 1869, 1893, 3324
wishes, dreams, 693
feral, 2352
first-grade, failure, 5685
flicker threshold, 4878
food habits, 1864
nursery school and, 2821
preference, 743
form discrimination, 1884
foster, 679, 3863
care, 709
friendship and quarrels, 688
gesture, 5876
gifted, 5289
education, 2262
enrichment program, 1307
reading, 5275
in school, 616
selection, 720, 2814
graphic rhythm, 6150
group play, 2828
growth, 710, 5292
depression and, 711
norms, Puerto Rico, 1860
periods, 2376
guidance, 2343, 2610
clinic, tests used, 5268, 5727
on continent, 1856
England, 2738
occupational therapy and, 376
outcome, 2382
school, 6111
St. Louis, 2360
handicapped, education, 5239
handedness transfer, 3462
handwriting errors, 6096
personality and, 3677
half orphan, 1388
head injury, 5037
health, 3351
effects, 5725
ideas, 1380
home management houses, 2377
home to school transition, 3254
hygiene, 2819
hyperactive, 673, 686, 739
hypophrenia and asociality, 2381
hypothyroidism, 6143
ideas, wealth and poverty, 3835
illegitimate, 2353
imagination, 1887
incendiarism, 1253
infections, 4800
information, 6184
integrated, 2333
intelligence, 1855
attention and, 728
quotient, 192, 3331
test, 4796
vitamin B and, 2327
walking age and, 5712
internal inhibition, 2508
instability, 2824
involuntary movements and intelligence, 1166
jealousy, 1873
laboratory, China, 724
language, 736, 4805
change, 4334, 6152
development, 3184, 3346
growth, 3859
laughter and crying, 1853
leaders, 541
leisure, 4650
lie, 2842
limb development, 1402
machine age and, 5283
magic, 5711
maladjustment, 725
culture conflict and, 704
in school, 3646
maltreatment, 5709
manipulation by, 1411
maze learning, 1890, 4801
memories, 668, 682, 3836, 6169
mental dangers, 2328
hygiene, 716, 2830, 3313
mimic ability, 4817
modeling, 4331
money and, 1397, 1875, 6162, 5298
moral development, 1863
social status and, 3848
morale and parent unemployment, 2330
morality, 2825
Moscow, 3860
mother and, 1184, 5304, 6158
motion study, 4000
motor learning, 4802
rhythm, 3356
scale, 3345
skill, 735
test, 5280
mountain, music ability, 3733
music, 2831, 3338
guidance, 6183
interest, 1406
murder, 5499
myelin development, 1410
myth, 4329
neglect, 748
negro, eidetism, 2941
intelligence, 3826
race attitude, 5588
nerve disease, 412
irritability, 5708
nervous, 1385, 6177
habits, 3327
treatment, 2340
neurasthenia, 1707
neuropathy, 2620
neurosis, 747, 1877, 2098, 3570, 3571
newborn, genital nerve endings, 672
reflex, 678
Babinski, 5851
normal, neuropathetic incidence, 2838
nutrition, 2339
object recognition, 6166
observation, 4808
sampling, 5278
only, 3357, 3648, 5328
parent attitude toward, 2336
resemblance, intelligence, 310
parent problems and, 4333
Parisian, moral ideas, 3753
participation in discussion, 689
perception, 6156
persistence, 5854
personality, 2331
blank, 1882
determinants, 1412
development, 5698
difficulties, 5997
judgment, 1186
parent intelligence and, 5992
psychotics, 4619
phonetics, 4809
picture book, 5303
play, 3842, 5311, 5717
intelligence and, 675
review, 3323
tradition and, 1400
popularity, 698, 1408
posture, 742
pregnancy order and development, 694
preschool, 731, 2834, 5306
blind, 3865
grammar, 732
intelligence variation, 2839
motor ability, 3838
play, 2363
problem, 1324, 1347, 2270, 2374, 3318, 3355, 3347, 5713
in Catholic school, 729
problems, 6163
parent and, 2358
projection, 1874
proprioceptive conditioning, 707
psychasthenia, 1134
psychiatry, 4616
character test in, 5536
journal, 5350
psychoanalysis, 1667, 3552, 4067, 5932
psychology, 738, 1819, 2383, 2832
textbook, 706, 1404, 6170
Chinese, 3852
psychopathy, 5543
psychosis, 5983
diagnosis, 1132
eidetic imagery, 3341
endocrines and, 2131
psychotherapy, 5031, 5294, 5958, 5984
quadrambulant, walking age, 4807
quarrel, 5281
questions, 733
race attitudes, 2384
rachitic, 5319
reaction to authority, 1407
novel stimuli, 1392
time, 3847, 5714
to unusual, 683
reflex, 1558, 2365
religion, 3854, 5285, 6175
resistance, 677
sympathy and, 1379

retarded, 4811
test, 378
rivalry, 2356, 3329
rural, environment, 2378
Russian, time budget, 4739
schizophrenia, 1155, 1164, 5973
school effects, 5706
mental hygiene, 4614
readiness, 2265
screaming, 726
sex in, 1396
conduct, 1391
development, 342
questions, 5299
sexual constitution, 2337, 2345
sibling attitudes, 3333
simultaneous conditioning, 730
singing, pitch in, 2829
rhythm in, 4330
skill and confidence, 2826
sleep, 1879, 3339
motility, 4812
play, appetite, 737
social activity, 2369
adjustment, 3322
approval, 3359
background, 4668
behavior, 3353
development, 691
life and language barrier, 3326
relations, 6160
studies, 1592
society and, 5295
sound and music, 1872
space perception, 3871
Spanish, Rorschach test, 4319
speech, 5282
defect, 5622
situation and, 5288
stepmother relations, 2361
study, 2256, 3831
composition and, 2351
literature, validity, 5318
psychoanalysis, 4563
stuttering, 4652, 4675
subnormal, perseveration, 4019
substitute stimulus, 5449
suggestion effects, 3569
suicide, 727
synesthesia, 4896
talking, 2367
Tartar, intelligence, 3817
teacher and, 5245
testimony, 1229
theft, 3689
thought, 3867
time concept, 6148
sense, 2501
toys, 1859
training, 687, 705, 1387, 1867, 3832, 5286, 5296, 5317, 6157
accident prevention, 4754
emotion and, 1384
moral behavior and, 3325
strict, 3879
trait ratings, 5279
treatment, 2371
two-year-old, 2348
verbal description, 5313
visual acuity, 2840
defects, 1321, 5778
test, 2433
vocabulary, written, 3840
vocational outlook, 5710
voice, pitch, 5300
wanderer, 4816
war films, 3837
welfare, bibliography, 5276
wishes, 1405
work distance, 1892
writing, 3328
young, psychic disturbance, 4822
(See also *Adolescence, Boy, Education, Family, Girl, Infant, Parent, Play*)
Chimpanzee, acuity and brightness, 3513
audition, 1025, 4493
brain, 4929
cortex, 3504
multiple-choice, 3528
problems, 4544
sensory cues in discrimination, 1072
sex and thwarting, 2541
symbolism, 3525
tool using, 3503
visual discrimination, 3506
China, child laboratory, 724
cinema and education, 2757
curriculum, 1837
education, 1808, 1810
higher, 6104
vocational, 1821
psychology publication, 2391
science teaching, 1805
school subject interests, 6091
teachers, 2769
Chinese infant, biography, 2835
color blindness, 2423
preference, 6014
cortex, 2468, 5837
famous, abnormalities, 2661
girl, vocation interests, 2758
handwriting, 2714
time, 1757
student opinion, 2774
puberty, 4336
reading, 2648
interests, 6013
student, interests, 2720
vocabulary, 2717
Chi-square test, 2309
Choice, effort in, monkey, 1597
length of path and, rat, 5469
multiple, chimpanzee, 3528
problems, chimpanzee, 4544
student, 5411
Chord ratios, 487
Chordate, eye development, 3058
Chorea, Huntington's, heredity, 4989
Sydenham's, 5950
Chroma and area, 5379
Chromatophore activator, crustacean, 5460
changes, 2042
response, fish, 5899
Chronaxy, 1550, 3976
adolescents, 2355
asymmetry, 2463, 2464
alcohol effects, 4425
blind, 4942
both, 3434
in catatonia, 3130
circulation and, 1572
cortex, heat stimulation and, 1535, 1536
critique, 952
dental nerves, 3983
as excitability measure, 1981
eye, altered, 2467
labyrinth and, 1532, 1537
muscle work and, 159, 4016
motor, 3453
nerve disease and, 4601, 4602
-muscle, 2976, 2980
size and, 2471
in parabiosis, 2953
phosphagen and, 3977
potassium and, 1575
pupil reflex, 2475
subordination, 2469
under sulfur dioxide, 4958
in syringomyelia, 1450
temperature and, 2954
vestibular nerve, 937
work effects on, 4479
Chronograph, 792
high-speed, 35
Chronoscope, 3373
gravity, 763
resetting, 1918
Church groups, intelligence in, 6117
psychiatry, 2622
Chuvash child, development, 5287
Cigarette identification, 5200
Cilia action, 4950
behavior, 2063
Ciliary movement apparatus, 161
innervation, 2014
temperature and, 162
Ciliate nervous system, 226
Cinema, 2193
adolescents and, 5600
advertising, 4238
appreciation, 1303
attitudes and, 1245
college students, 637
child and, 5703
attendance, 4806
conduct and, 1206, 1256
delinquency and, 1207, 4169
education, 4648
effects, child, 5728
educational, 2757
emotional, child, 1390
morals and, 1244
morality of, 3711
observer reliability, 5624
propaganda, 5635
reactions to, 1205
retention and, 604
response by galvanic reflex, 3715
in school, 4278
slow, 3883
social attitude and, child, 714
stereoscopic, 11
study, voice, 4184
as trauma, 1854
work accidents, 4222
youth and, 1214
Cinematoscope, 785
Circuit, balanced, 34
Circulation, chronaxy and, 1572
labyrinth reflex, 5431
under pressure, 4005
schizophrenia, 5527
(See also *Blood, Heart, Pulse*)
Circus movement, insect, 3489
Citizenship, school, factors in, 584
City adolescents, 3315
Civilization and improvement, 4197
Clamp, head, 5749
Clang, pitch, 3934
Clairvoyance, 341, 3574, 4996, 4997, 5021, 5479
crime and, 5011
experiment, 2080
police and, 5002, 5010
Clark, L. P., obituary, 3360
Class period length, 1327
size, 1332
Classroom, seat preference, 1309
Classification, apparatus, 2872
psychiatric, 5042, 5047
scheme, psychology, 776
Cleanliness habit, child, 3571
Clerk, promotion rate, 3739
test, 1284, 4230, 5187
review, 5194
Climacterium and epilepsy, 387
Climate and psychosis, 3584
Clinic, child, 2349
efficiency, 3168
follow-up, 2166
guidance, 2343, 5727
educational, 6130
neuro-psychiatric, 1106
psychiatry training and, 5980
Clitoris masturbation, 3558
Closure in perception, 817
Clothing, factory, 6078
Coati, problem solving, 3022
Cocaine effects on conditioning, 185
paresthesia, 3577
Coccid, phototropism, 192
Cochlea lesion, audition after, 4904
electric phenomena, 5787
response, 1942, 5788
stimulation, 816
nerve supply, 3437
Cockroach, heart control, 280
reflexes, 3038
Coelenterate, see *Hydra, Siphonophore*
Coffee, learning effects, 2097
(See also *Caffein*)
Cognition, 4846
Cold, common, psychological factors, 3567
Collapse experience in epilepsy, 5979
College adjustment, 133 1
attended by mathematicians, 638
counselling, 1301
course, three-year, 5235
credit for high-school students, 618
curriculum, 1348
education, women, 3781
English composition test, 2795
entrance tests, negro, 6093
examination preparation and type of, 3259
students' opinion of, 3288
fertility, 2072
fraternity and scholarship, 6087
freshmen, adjustment, 2763
orientation, 4292
scholarship prediction, 595
tests, 2288
young, 2277
functions, 1333
graduate opinion, 6104

vs. high school ability, 4760
high school and, overlapping, 5237
intelligence, scholarship, 1349
testa, 4755
leader types, 1785
-ship, correlates, 2713
learning, 2458
liberal attitude in, 625
(See also *Religion*)
men in store, 2734
vocational satisfaction, 4728
mental hygiene, 4296, 4301, 5225
personnel work, 1300, 3806
usefulness, 3783
scholarship, 1339
football and, 615
student attitudes, depression effect, 579
toward movies, 637
slander, 3219
guidance, 607
moral belief, 2666
negro, 2755
scholarship concomitants, 592
religion, 2667
woman, failure, 4274
young, 5246
study, 2289
success, eye movements and, 2764
finances and, 2765
high school course repetition and, 5247
prediction, 2266, 5253, 5254, 5255, 6095
review, 5256
teaching experience and, 4306
survival in, 2785
teacher appointment and promotion, 630
psychiatry and, 4302
supply-demand, 3804
work, 5219
teaching, supervision, 1323
test, 1369
testing, 1361
training, composition, 1314
turnover, 2930
value differences, 1182
variation, scholarship and intelligence, 1304
vocation choice, 3283
withdrawals, 581
women, metabolism, 2498
(See also *Education, Fraternity, Freshman, Student*)
Color, 5135
agnosia, 1158
anomalies, 3906
blend, imagined, 5363
blindness, 820, 5781
Chinese, 2423
green, 1512
incidence, 4875
negro, 6016
total, 821
change, animals, 2992
Arbacia, 2041
Dixippus, 4521
hypophysis and, minnow, 3035
insect, 189
minnow, 4517
chart, 867
constancy, 877
illumination and, 2882
contrast, 2883
in vision, 60
discrimination, 4908, 4252
intensity and, 2896
monkey, 4031
drawing, 1201
effects, work, 4716
field, 2437
fatigue and, 960, 3947
limits, 1462
filters, 5774
vertebrate eye, 2059, 2545
flight, 3903
fusion, 1931
harmony, child, 6178
critique, 4359
impressions in hypophrenia, 3640
light and, 4867
measurement, 3407
mixture, 2918
perception and glare, 4863
phenomena, subjective, 3912
photography, eye, 5735
preference, 3956
child, 5705
Chinese, 6014
correlates, 2927
lizard, 3076
moth, 1614
pleasant experience and, 1519
reaction, protozoan, 2019
saturation, 3931
sense, fish, 3057
transmitters, 3085
sensitivity, peripheral, 1497
personality and, 2909
purity and, 874
single cell, 4365
spreading, 870
standards, 837
temperature, 835
testing, aviator, 809
threshold, 844
time associations and, bee, 3505
-tone association, 4383
vision, 74, 865
anomalous, 2903, 2904
apparatus, 762
bee, 4513
crab, 4033
after CO poisoning, 80
Drosophila, 4486
hedgehog, 4500
mescalin, 3101
tests, 71, 4384
turtle, 4543
Young theory, 2900
white light from, 54
workers, selection, 2740, 6080
yellow saturation for, 836
(See also *Chroma, Hue, Saturation, Vision, Yellow*)
Combination of illusions, 5386
Commercial student, tests, 5668
Common sense, presumptions, 4834
Community, attraction, 2684
management, 5193
mental hygiene, 2589
(See also *Sociology*)
Comparative psychology, text, 4054, 4970
(See also *Animal*)
Comparison, 4364
Compensation, 1753, 3655
handedness and, 3468
sensory, in blindness, 1948
work injury, 2252
Complex, 2157
hypnotically induced, 3560
Lear, 351
theory of, 5484
Composer preferences, orchestra, 482
Composition, child study, 2351
balance, 6144
errors, 1816
elimination, 1828
organization ability, 628
scale, 3285
teaching, 1820
test, 2290
college, 2795
training, college, 1314
unity, child, 6181
(See also *English*)
Comprehension, 1433
directions, adults, 919
drill effects, 3292
reading, 2703
testing of, 3257
training and, 5662
Compulsion neurosis, 5061
psychoanalysis of, 337
(See also *Neurosis, Obsession*)
Computation, approximations, 4779
Conation, 4846
Concentration plan, high school, 4752
of professional training, 3263
Concept, thinking, 102
Concussion, cranial, 5570
Confidence, child, 6179
Coloration and drug, frog, 2045
eye and hypnosis effects, 2068
frog and vision, 2046
Conditioning, 132, 983, 3478, 4457, 4481, 5451
adrenals and, 2509
anticipation in, 5879
apparatus, 5734
audition studies, 1148
test, 3491
auditory, dog
to benzene poisoning, 130
bird, 3018
cat, 4439
child, 696, 699, 700, 701, 703, 712, 713, 715, 744, 1884, 2494
review, 717
complexity and, 5452
cortex and, 968
monkey, 3492
to cortex shock, 2036
delusion and, 2616
diet and, dog, 955
different stimuli, 169
differentiation, dog, 299
difficult child, 697
diuresis, 163
drug effects on, 185
effects on unconditioned stimuli, 2506
extinction and, 3005, 4436
fish, 3057
free-moving animal, 4482
frog, 3019
galvanic reflex, 3007
guinea pig, 5891
hypnosis and, 4572
hypophysectomy and, dog, 2979
by imitation, dog, 2532
induction, child, 2503
inhibition, child, 2485
internal inhibition, child, 2508
irradiation, 2478
language and, 3703
in learning, 5863
after loss of cerebral hemisphere, 176
methods, human, 152
in monkeys after brain lesion, 279
negative, 4453
neurosis and, 172
obsession and, 1144
paranoia and, 2500
to partial stimuli, 4459
proprioceptive, in child, 707
psychoanalysis and, 1564
rabies effect on, 2489
rate, 3004
and volition, 2978
registration technique, 4462
simultaneous, in children, 730
social, 4329
stimuli vs. symbols, 153
subliminal, 962, 1002
synesthesia, 4371
theory, 936, 999, 2972
thyroid deficiency and, 2482
effect, dog, 1639
time in, 4943
relations, 1009, 3015, 5430
sense, 2501
transfer, 1001
types, 1008
withdrawal, 4434
review, 2994
X-ray brain effects and, 4422
(See also *Differentiation, Disinhibition, Extinction, Inhibition, Learning*)
Conduct, 4856
cinema and, 1206, 1256
disorder, child, 3878
illness and, child, 695
problem, child, 5320
(See also *Morals*)
Conductance, nerve, 3435
Conduction, labyrinth impulses, 105
nerve, 5424, 5826, 5829, 5881
time, 4925
Confidence, skill and, child, 2826
Configuration, child, 731
Conflict growth, 2101
mental, 3614
situation, psychopathy in, 5986
social, mental hygiene and, 1711
Conformity behavior, 6007
religious, 1260
Confusion states, 2597
Congress, child, proceedings, 1886
mental hygiene, 2588
Conscience, 467, 468, 1228, 6055
adolescent girl, 2332
determinants, 469
(See also *Super-ego*)
Consciousness, 2, 2388, 3366, 4846
theory, 7
words for, 4345
disturbances, 5566

motor theory, 3467
(See also *Awareness*)
Conservatism, age and sex differences, 1202
teaching of, 5660
Consonance, judgment and, 1936, 6009
Consonant formation, 4205
Constancy of behavior, bee, 2525
child, 2326
of gray, 877
size and Gestalt, 1451
visual, 856, 3938, 5377
thought ability, 3965
Constant stimuli method, 1939
Constipation, functional, 374
Yoga and, 5494
Constitution, 1563, 1581, 1588, 1719, 4166
alcoholism and, 5941
crime and, 2642
critique, 1579
disease and, 997
disposition, performance, 4707
fecundity and, 1075
negro, 6015
performance and, 2961
personality, 5106, 5988
psychoanalysis and, 1665
psychopathology and, 5987
in psychosis, 3631
psychotherapy and, 5982
sexual, child, 2337, 2345
study, Italian, 1582
stuttering, 3729
temperament, genius, 4633
therapy, 3617
type, 5438, 5999
vocational guidance and, 1573
weight and, 5718
(See also *Body type, Kretschmer*)
Construction, child, 3850
workers, fatigue, 2244
Costume design, 6028
Consumer preference, 3249
Consumption, 1283
Contact breaker, 1429
Contraction strength, muscle, and sympathetic, 110
striated muscle, 2009
voluntary, action current, 4477
Contrast, color, 2883
conditions, 5394
simultaneous, 2432
Control group experiment, safeguards, 588
visual and congenital cataract, 5775
Convergence, accommodation and, 1968, 2434
reflex, 79, 2507
change, 4903
stability, 3418
Conversation, criminal, 2196
Conversion hysteria, 2609
Convict, personality, 4628
Convulsion and emotion, 5947
Coördination, 4022
child, 6142
ciliary, 161
reaction, 980
reversal, 4010
(See also *Steadiness*)
test, 4324
Coöperation, industrial, 3767, 4718
Copepod, size and temperature, 4035
swimming movements, 1626
vision, 224
CO poisoning, 2583
effects, 2117
visual effects, 80
Cord and behavior development, 5422
and brain, frog, 4923
double section, 3515
memory, association, 1030
nerve impulse in, 3982
heat output, frog, 1547
lesions and tonus, 157
dog, 139
section, reflex release and, 2491
shark, 3517
segment, isolated, functions, 3522
sensitivity, 3916
(See also *Nerve*)
Cornea sensitivity, 1944, 5815
Corpus callosum section effects, monkey, 4039
Correlation, 5259
coefficient, 4773
new, 3811
prediction value, 3808
computation, 2800
tables, 4774
form, 4778
grouping error, 5676
in human genetics, 3809
machine computation, 4770
of moments, 642
psychology, 5263
sampling, in matched groups, 648
spatial, 5678
theory, 5264
Correspondence course, efficacy, 2221
Corti, organ of, 3907
Cortex, action currents, 2951, 4418
potentials, 5821
activity in anemia, 4432
autonomic representation, 4409
bear, 3030
chimpanzee, 3504
Chinese, 2468, 5837
chronaxy, heat stimulation and, 1535, 1536
conditioning and, 968, 4457
monkey, 3492
conduction to autonomic, 5836
control, cat movements, 2511
effect, work, 4921
emotional expression and, 4911
excitability, cat, 3024
extirpation, gibbon, 3042
primates, 3034
rabbit, 3518
rat, 3501
fields, 5838
growth, 1538
impulse to eye muscles, 5844
integration, 4374
integrative functions, 948
lesion and behavior, monkey, 3495
visual retention, rat, 4967
localization, 931, 3438
monkey, 933
rabbit, 4417
motor, of mammal, 3500
monkey, 5420
porcupine, 4510
myelination, 119
nerve systems, 1553
olfactory, 1985
pathways, movement, cat, 2533
physiology, 936
posture and, dog, 3527
pre-motor, monkey, 5418, 5419
rabbit, activity, 927
rat, action current, 4433
representation, retina, 1958
of tail, monkey, 117
response, light, 4028
shock, conditioning to, 2036
stimulation, dog, 3047
vasomotor representation, 3984
vision and audition in, 4045
visual, goldfish, 4531
Counselling, freshman, 1301
long-time effect, 599
student, 3299
(See also *Personnel*)
Counting by dog, 4971
Country child, characteristics, 1308
environment, 2378
sociology, 526
youth and vocation, 4332
Courage, education for, 5244
Course load and scholarship, 3786
Court, juvenile, statistics, 2719
(See also *Delinquency*)
Courtesy, teaching of, 2190
Courtship, 2179
Cousin parents, effects on offspring, 4553
intelligence similarity, 4550
Crab-anemone, symbiosis, 3029
chemical sense, 2065
claw, nerve supply, 4495
innervation, 4537
eye movements, 4033
learning, 246
locomotion, 4509
nerve centers, 1602
muscle system, 4541
osmosis, 4047
reaction to shells, 4501
Cramp from heat, 4452
Cranium trauma, child, 5569
Crayfish, action potential, 2537
illumination and leg movements, 245
learning, 186
light reactions, 3526
nerve, action current, 3509
vision, 3523
Creatin and activity, infant, 708
Creativity, child, 5310
eroticism and, 4203
neurosis, 392
in science, 3734
Cretinism, child, 6143
Cricket, heredity of song, 3033
Crime, 3672, 3698
in adolescence, 1231
alcohol and, 5117
Boston, 3732
clairvoyance and, 5011
congenital, 1217
constitution and, 2642
disposition to, 2183
employment, 4207
female, motives, 481
graphology and, 5168, 6053
habitual, 2180
handwriting and, 5646
heredity and, 2551, 3546
laboratory, 497
neurosis and, 1776, 5512
occupation, 4212, 5181
Poland, code, 3675
prevention, 5594
propaganda against, 4642
psychiatry and, 1266, 2159, 3707
psychosis and, 430, 1108, 3586, 3642, 3713, 5108, 5976
research on, 2680
schizophrenia and, 4123
sex, 3198, 1238
Germany, 5170
sterilization and, 2550
study, 1251, 2178, 3233, 3723
Germany, 2672
sun spots and, 3112
telepathy and, 5007
treatment, 474
twins, 4060
women in, 2187
(See also *Convict, Court, Delinquency, Guilt, Imprisonment, Law, Prison, Recidivism, Reformatory, Responsibility, Sentence, Swindling*)
Criminal, abnormal, treatment, 2136
conversation, 2196
drawings, 6058
habitual, 2674
incorrigible, 2704
morphology, 4172
occasional, 2701
personality, 4198
psychoanalysis of, 2570
psychopathy, 4661
sex, handwriting, 5586
sterilization, 2198
test, 508
Cripple, adjustment, 4309
personality, 2149
sensitivity, 1501
Crisis, psychology, 2847
Criticism, literary, 501
Crowd mind, 6012
(See also *Social*)
Crowding, personality and, 2158
Cross education, 140
touch localization, 1470
Crustacea, autotomy, 3079
chromatophore activator, 5460
extra limb, 3021
learning, 5886
orientation, 273
(See also *Astacus, Barnacle, Copepod, Crab, Crayfish, Daphnia, Shrimp*)
Crying, child, 1853, 1881
Culture conflict and child maladjustment, 704
contact and character modification, 5578
Judaism, 5601
personality and, 5616
education and, 3268
evaluation in education, 1310
habits and, 3688
intelligence-test score and, 5144
patterns, 4646, 6008
personality and, Bantu, 5604
primitive, 4187
products, 1814
psychosis as, 2600, 5507, 5532

schizophrenia, 5523
sex and, 5178
Cupula, catfish, 2020
Curiosity, pathological, encephalitis, 5954
Current history knowledge, students, 4747
stabilizing devices, 5341
(See also *Electric*)
Curriculum, China, 1837
choice and intelligence, 4297
college, 1348
construction, 4288
Gestalt and, 6088
research, review, 4729
Curve fitting, 2304, 2306
Cycle, 741
Cycloplegics and refraction, 4885
Cyclothymia, 1709, 2107, 4134, 5501
body type, 1126
childhood background, 4619
drugs in, 1710
dynamics, 5038
endocrines and, 5948
handwriting in, 407
heredity and, 406, 5069
in history, 3116
hysteria and, 4120
introversion in, 6003
morphology in, 3606
personality, 5078
poetry in, 1147
recoverable cases, 2594
reflex latency, 5516
Rorschach in, 2608
schizophrenia and, 3638
senile, 5070
sex and endocrines, 1151
therapy, 5564
Czechoslovakia, student knowledge, 3204
Daphnia, light sensitivity, 257
phototropism, 3075
Dark adaptation, 3904
curve, 3932
foveal, 5770
(See also *Light*)
Day-dream, child, 4810
(See also *Fantasy*)
Deaf mute child, behavior, 3868
religion, 6167
education, 4872
eye changes, 843
language introduction, 3386
in industry, 4380
motor speech, 5618
speech education, 4873
spelling, 3405
mutism, hereditary, 4982, 4983
testimony, 4367
Deafness, 3389
child, 67
congenital, 805
eye color and, cat, 5461
intelligence and, 1489
neuroticism, 3661
occupational, 4905
pain from sound waves, 2422
paranoid reactions in, 6001
personality test in, 5094
problems of, 4876
progressive, 5794
speech in, 4660
during speech therapy, 4882
stimulation, 5780, 5814
survey, school, 1457
touch reception in, 818
traumatic, 4865
vocation in, 6108
(See also *Audition*)
Death, 3089
attitude, child, 2350, 3350
dreams, 347
emotions before, 3103
fear of, primitive, 2673
flowers and, 1653
infant, 1876
instinct, 5916
myth, 5610
rate in hypophrenia, 5959
repression about, 369
sex attitudes and, 6050
(See also *Mortality*)
Deception, 2455, 4188
(See also *Falsification, Lie, Malingering*)
Decerebration and knee jerk, 986
rigidity, 2010
Decision and fatigue, 4703
Defective, sterilization, 5975
(See also *Hypophrenia*)
Definition test, 1374
Deiters nucleus, reflex and, 2985
Déjà vu, illusion, 814
Delay in practice, 3851
recall, 4446
reward, rat learning, 2547
reaction, monkey, 5462
raccoon, 1051
reaction and learning, monkey, 1028
response, rat, 5468
Delinquency, 3203
adolescent, 3321
antecedents of, 1791
areas, Oklahoma City, 5163
Arthur vs. Binet tests, 3307
association test in, 3684
attitudes on, 2668
birth rank and, 2707
blood calcium in, 2693
capacity and, 5314
case, 3107
studies, 4816
character in, 1792
cheating and, 6025
child, 476, 521, 1212, 1236, 1254, 1255, 1745, 2166, 2203, 2651, 3168, 3211, 3833, 4818
bibliography, 2162
cinema and, 1207, 4169
depression and, 6029
ecology of, 489
environment and, 470
factors, 4640
family influence, 4683
immigration and, 1786, 1199, 5587
intelligence, 2662, 4682, 5166
law, 5164
metabolism and intelligence, 6041
nationality and, 5634
passional, 3673
personality and, 438, 1180, 3650
physical defect in, 3314
prevention, 4653, 4663
vocational guidance and, 4662
primogeniture and, 2163
profiles, 6042
psychopathology and, 1782
psychopathy in, 4179
responsibility in, 2579
sex, marginality, 1748
social participation and, 1735
suggestibility and, 2650
survey, high school, 5147
twins, 4060
vision and, 4892
vocabulary in, 2706
(See also *Court, Incorrigibility*)
Delirium, bromide, 403
tremens, hallucinations, 3621
Delusion, 5949, 4093
dream and, 3097
exhibitionism and, 2590
of healing powers, 2596
mania and, 2598
maternity, 3576
negation in paresis, 4122
paranoid, 1102, 4089
persecution, conditioning and, 2616
personality and, 368
reality in, 4091
Dementia infantilis, 5546
senile, 4582
Density, tone, 4901
Dentist, attitude toward, 3087
psychology, 5650
success prediction, 572
Denunciation and certainty, religious, 6038
Depersonalization, source, 5930
Depression, economic and mental, 4098
effect, college intelligence, 4755
drugs, 1710
students, 4765
attitudes, 579
following joy, 5510
sunlight and, 4598
types, 4107
women, 4608
Depressor shock, 165
Depth localization, 4386
perception, 2435, 3949, 4379
after-image, 3915
test, 3413
psychology, experimental, 1675, 4578
(See also *Distance*)
Descartes, localization, 2412
philosophy, 739, 764, 4839
Design, costume, 6028
Desire, 2969
Description, verbal, by children, 5313
Determination, 2982
Determinism, 1427
Deterioration test, 434
Deutsche Gesellschaft für Psychologie meeting, 1899
Development, 741
age, boys, 4803
child, 1393, 5719
Chuvash, 5287
constancy, child, 5323
increments, 5324
instinct and, 964
nerve system, 4431
psychology, 4842
test, girls, 5325
(See also *Evolution, Growth, Maturation*)
Dewey, critique of, 5333
Diagnosis blank, psychological, 1434, 1435
hypophrenia vs. psychosis, 1132
psychiatric, 2612
Diapause and temperature, 196
Diaphragm, dog, excitability, 2524
Diary, three generations in, 2329
Dictating machine, 554
Dictionary of psychology, 1424
Diet and conditioning, dog, 955
effects, 3556
learning and, mouse, 1044
rat, 1032, 4052
nerve system and, rat, 2518
stammering, 6019
(See also *Appetite, Feeding, Hunger, Nutrition, Vitamin*)
Difference, average, random pairings, 3792
error of, 3813
individual, 1693, 4626
practice and, 2449
practice effect, 3445
prediction method, 646
significance, 4771
between V's, standard error, 6135
voice, 1233
Differential psychology, 664
Differentiation in conditioning, dog, 299
Difficulty vs. frequency, Latin, 5231
length of learning and, 177
maze blinds, 4974
nonsense syllables, 2448
order, maze alleys, 1022
score and, 2756
performance and, 2947
vocabulary, IQ and, 1367
Digestion apparatus excitations, tonus and, 1537
exercise and, 1998, 1999, 2000, 2001
functional disturbance, 4565
nerve influence on, 147
noise and, 4009
Digit-span test, 6139
Diligence, measurement, 4146
Diplopia, significance, 4886
transitory, 862
Dipsomania, twins, 4058
(See also *Alcoholism*)
Directory, ophthalmology, 1950
Disabled, vocational guidance, 4763
(See also *Handicapped*)
Disability, arithmetic, 2792
spelling, 3276
writing, 507
Discharge, 3250
Discipline, child, 5715, 5716
school, 4289
Discrimination, auditory, and light, 2888
apparatus, cat, 3381
brightness, 825
minnow, 4533
color, 4252, 4908
monkey, 4031
depth, 3949
establishment, rate, 3004
extinction of, rat, 275
form, bird, 1060
cat, 1059
child, 731, 1884
peripheral, 2920
hunger-thirst, rat, 1040
sense cues, chimpanzee, 1072

size, monkey, 239
mouse, 4527
social, 6059
sound intensity, 5803
touch, generalization, 5361
tone, bird, 4540
tortoise, 1607
transfer of, 1033
visual, 3055
cat, 5897
chimpanzee, 3506
monkey, 1613
weight, error, 882
rat, 3479
Discussion, high school pupil, 689
in teaching, 5227
Disease, child and nursery school, 2844
constitution and, 997
education and, child, 3853
in psychopathy, 3637
Dissertations in progress, sociology, 4637
Disgust, dog, 4498
Disinhibition, galvanic reflex, 1005
Dislike, personal, 2154
Disorganization, social, 3680
Disorientation and vertigo, 4948
Display, bird, 4962
Disposition, constitution, performance, 4707
(See also *Personality*)
Distance estimation, tactual, 2886
judgment, touch, 5390
wasp, 5902
social, 3162
test, 5603
(See also *Depth*)
Distraction, 3428, 3967
success and, 5413
test performance and, 3819
(See also *Attention*)
Distribution laws, 3409
practice, 4915
Diuresis, conditioned, 163
Diving, motion study, 4008
Diver, glasses, 1941
Divergence, ocular, 3945
Divorce, marriage and, 1771
psychosis in, 2139, 3114
(See also *Marriage*)
Dixippus, color change, 4521
shock stimuli, 4496
Docility and inhibition, child, 1883
Doctorate disadvantages, 1325
psychology, 2858
Dog, audition, 1027, 3483
X-ray effects, 3493
brain, X-ray effects, 4422
breeding, 5457
cerebrum and conditioning, 176
conditioning and hypophysectomy, 2979
by imitation, 2532
thyroid and, 4449
cord transection, 3615
cortex and posture, 3527
stimulation, 3047
diet and conditioning, 955
differentiation in conditioning, 299
disgust, 4498
experimental epilepsy, 5552
frontal lobe, 1595
gastric reflexes, 4478
hypnosis, 3059
hysteria, 1634
intelligent, 242
isolated cord segment, 3522
learning, 4494
mental characters, 4503
metabolism and nerve control, 4017
muscle tonus and lesions, 139
number counting, 4971
reflex innervation, 3514
sledge, characteristics, 241
sucking time concomitants, 4968
thinking, 5458
thyroid function, 1639
training, 2057
Dogfish, unisegmental reflex, 5900
Dominance and acuity, 2884
cerebral, 950, 4600
in learning, 898
perception and, 839
visual learning and, 1465
scale, 2630
Dorsal root fibers, 1530
Downey, J. E., obituary, 2870
will-temperament tests, reliability and validity, 1175
Dragon-fly larva, movement perception, 3063
Drama, guilt in, 340
motives, 2558
Drawing for blind, 3742
child, 1247, 3195, 3336, 5305, 6149
color in, 1201
criminal, 6058
disturbance in agnosia, 383
growth, child, 3344
in hypophrenia, 5518
in paresis, 3593
proportion in, 1200
in schizophrenia, 1163
teaching, 1328, 1822
test in hypophrenia, 1120
twins, 4061
(See also *Art*)
Dream, 1666, 2103, 3575, 5043
analysis, 2091
anxiety, 5481
characteristics, 2567
child, 693, 2370
death in, 347
delusion and, 3097
ego, 5918
in epilepsy, 5951
frigid woman, 352
hypnotic, respiration and excitement, 355
interpretation, 1086, 4562
magic and, 5488
neuroticism and, 2561
physiological basis, 2565
process, 5920
psychopathy and, 5521
self-consciousness and, 5742
study, 5000
theory, 5026
veridical, 5938
(See also *Dream*)
Dredge captain, qualifications, 4231
Dressmaker, aptitudes, 2250
test, 4264
Drill effects, history, 3292
method, vocabulary, 5238
Drilling vs. punching, 3750
Drinking abnormalities, 4606
Drive, 2157
activity, child, 5277
learning and, rat, 3482
rat, 2526
Driving, startle in, 3741
Driver, test, 5188
Drosophila, acuity and intensity, 3497
color vision, 4486
sex behavior, 2546
ultra-violet sensitivity, 5893
vision, 2029
Drug action on nerve, 116
addiction, 1098, 2578, 4994
Mexico, 1099
coloration and, 2045
effects, depression, 1710
hallucinations, 424
heart rate, 4001
learning, 2936
metabolism, 978
nerve response, 1541
psychopaths, 5929
reaction time, 4006
reflex, frog, 2967
sleep, 1094
suggestion and, 4435
tolerance, 3105
(See also *Alcohol, Barbital, Bromide, Caffein, CO, Cocaine, Ergotoxin, Ether, Mescal, Narcosis, Opium, Recresal, Strychnine, Tobacco*)
Drum language, Bantu, 4647
Dualism in psychology, 5757
Duplication, psychic, 340
Duration, light, and dark adaptation, 5373, 5374
warmth and, 2889
Dynamograph, 38
Dynamometer reaction, 5869
Dyskinesia, 371
Dysbasia, lordotic, 3623
Dyslexia, 396, 5045
Dyspepsia, neurasthenia, allergy, 5542

Ear, cupula, 806
disorders, 1449
endocrines and, 958
inner, electric phenomena, 2427
lesion, rabbit, 4357
oxygen consumption, 2459
passages, sensitivity, 2424
physiology, 4881
transplant, *Amblystoma*, 270
(See also *Audition, Fenestra, Tympanum*)
Earthquake response, fish, 3036
Earthworm, autotomy, 243
electricity reaction, 5903
nervous system, 4522
Easter Island culture, 5633
Eating, child, 2577
(See also *Food*)
Echinoderm, see *Arbacia*
Echo reading, 1492
Echographia, 5563
Eclecticism, 17
critique, 4840
Ecology of delinquency, 489
Economics, attitude and family, 5585
high school, 636
depression, psychiatric effects, 3602, 3622, 3635
psychopathy and, 1681
Editor, opinion, 1739
Education, 1824, 1825, 3295
for abnormal, 6127
accident prevention and, 4754
aim, 1826, 3256
assumptions, 1344
bibliography, 2753, 2767, 2773
blind, 3933, 6100
deaf, 1804
bright child, 5302
of character, 1311, 2254, 2264, 2273, 2275, 2282, 2286, 3253, 3775
Russia, 3294
Chinese, 1808, 1810
cinema in, 4278, 4648
clinic, 6130
for courage, 5244
courses, scattering, 3263
crisis, 1818
culture and, 3268
evolution in, 1310
products in, 1814
custodial, 389
deaf mutes, 4872
Decroly on, 3267
disease and, child, 3853
effects, cinema, China, 2757
efficiency, 2291
eidetic imagery, 4913
errors, 6103
exceptional child, 1320
family in, 4673
fertility, 318
foreign, bibliography, 577
freedom in, 3785
Germany, 3269
Gestalt and, 3777, 6088
gifted child, 2262
girls' ideas on, 4743
graphology and, 5125
handicapped pupil, 5239
in Hawaii, 613
higher, 6104
history of, 1294
in hypophrenia, 1685, 4101, 4141, 5943
improvement, 3987
infant, 5290
informal, 4653, 4663, 4685
international, 3778
liberty and, 1793
measurement, 1298, 2259, 2293
medical, 2279
mental hygiene in, 1291, 1693, 2295, 2787, 4299, 639
minority, bibliography, 2761
modern, 5283
norm in, 3789
nursery, 5666, 6085
parental, 593
periodicals, 5224
progressive, philosophic origins, 594
philosophy, 3297
pitch deficiency, 881
politics and, 3717
preschool child, 3844
bibliography, 4282
primitive, 6023
principles, 6124
problems, 4731

psychoanalysis and, 3566, 4077
psychology, 1313, 1317, 1336, 3801, 4761, 5651
courses, 1345
exercises, 4742
general psychology and, 5226
outline, 6113
tests, 5663
prediction, 5251
topics, pleasantness of, 2768
textbook, 1806, 2272, 5657, 5661, 5672, 6092
workbook, 585, 612
reform, psychology of, 2759
research, 378, 2268, 2298, 3251, 3264, 3287, 3779, 5665
Australia, 1292
in progress, 2267
review, 5232
reward and punishment in, 5656
sex, 1293, 1391, 5729
textbook, 6115
social basis, 3903
society and, 4279
sociology, 4738
special, 1140, 1143, 1299, 1330, 6125
for handicapped, 5985
specific value, 1329
teacher, 1334
theory, 4276
thought in, 90
testing in, 1831
China, 6089
review, 5659
tooth care, 5257
trends, 3788
values and, 3656
vocational, 3795
aptitude, 2226
China, 1821
women, 3781
(See also *Child, Class, College, Course, Curriculum, Drill, Extra-curricular, Faculty, First-grade, Grades, Graduate, Guidance, High School, History, Kindergarten, Latin, Lecture, Major, Marks, Montessori, Nursery, Preschool, Principal, Reading, Recitation, Report, Scholarship, School, Seat, Spelling, Student, Teaching, Teacher, Term, Textbook*)
Eel, heart action, 286
movement, 3023
Effect, law of, 2453, 3010, 3456, 4514
learning curve and, 900
review, 4920
Efficiency, 24
change of work and, 560
character and, 1285
emotion, learning, 912
illumination and, 2228
industrial, 2233
interpolated activity and, 559
loss, 2723
menstruation and, 2234
mental, and tension, 5883
monotonous task, 4269
music and, 3967
noise and, 62, 68
visual, 1289
(See also *Performance*)
Effort in choice, monkey, 1597
least, in learning, rat, 5463
mental and perspiration, 3460
muscle action in, 4025
(See also *Will*)
Ego, 1419, 5492
dream, 5918
in psychoanalysis, 5935, 5478
Eidetics, 1176
imagery, 3968, 3974, 4917
child, 3330
negro, 2941
education and, 4913
intelligence and, 1977
psychotic child, 3341
Wyspianski, S., 4406
Electric effect on skin sense thresholds, 873
perception, fish, 1619, 1628
phenomena, cerebrum, 1548
reaction, earthworm, 5903
sensitivity, fish, 1600
shock and psychoanalysis, 3557
stimulation method, 2036
response, ameba, 70
unconsciousness from, 3488
(See also *Current*)
Electroscope, 800
Electrotonus, 3001, 3002
Element, mental, 2122
Elephant, habits, 251
Embryo activity, bird, 2035
behavior and myelin, 4421
bird, heart and amnion, 4497
cat, reflex, 4542
fish, activity, 1021
(See also *Fetus*)
Emigration and insanity, 5041
psychosis and, 3585, 3625, 5040
Eminent men, birth month, 4991
(See also *Genius*)
Emotion, 892, 3954
adjustment and intelligence, 5688
adrenin and, cat, 4534
annoyance and, 5403
aviator, 884
bipolarity in, 1517
blood calcium and, 84
cells and, rabbit, 4397
changes in, 1518
content in, rabbit, 2442
bone development and, child, 2372
child study method, 5327
training and, 1384
citizenship and, school, 584
convulsion and, 5947
crimes of, 3673
development, Indian, 2700
in disease, 5968
as disorganized response, 886
disorders, adolescence, 1852
effects of cinema, child, 1390
on learning, 926
esthetic, 4399
expression of, 2443, 5818
cortex and, 4911
galvanic reaction and, 890
Gestalt and, 3958
motor, 5857
in hypophrenia, 1111
Indians, 513
interest and, 512
infant, 4804
vs. intelligence, 450
jaundice from, 4129
in learning, 895, 3423
efficiency, 912
localization, 2924
leucocytes and, rabbit, 4398
measurement, 887
mechanism of, 85
metabolism and, 1516
movement and, 885
murder and, 5133
music and, 6051
neuro-humoral basis, 5816
problems, child, 2827
rat, 2526
spinal reflex and, 5873
respiratory correlates, 4466
retardation and, 1720
rhythm in men, 2923
sexual, woman, 2922
social behavior and, 3952
steadiness and, 143
susceptibility, correlates, 5404
term, 1971
test, 5817, 5819
theory, 889, 2925, 2926, 2928, 3951
James, 891
McCosh on, 5402
thyrotoxicosis and, 1515
in tuberculosis, 1123
icterus and, 3113
(See also *Adjustment, Affect, Anger, Anxiety, Disgust, Fear, Feeling, Grief, Hate, Jealousy, Joy, Love, Neuroticism, Sadness, Sentiment, Shame*)
Empathy, child, 3352
Employee, partnership resistance, 2726
success factor, 6064
Employment, 3250
ability and, 6067
crime and, 4207
mother, and child attitude, 4820
office procedure, 2232
Encephalitis, case, 3107
diagnosis, 5944
eye symptoms, 1678
sympathetic disorder, 2142
pathological curiosity, 5954
psychomotor symptoms, 1688
psychosis of, 5972
sensitivity modifications, 5075
sequelae, 379
work ability in, 4617
Endocrines, 453, 4018
cephalic index and, 1994
child psychosis, 2131
cyclothymia and, 5948
ear and, 958
effects, labyrinth, 4480
regulation by, 4471
neurosis and, 4092
psychosis and, 2138
sex, cyclothymia and, 1151
(See also *Adrenalin, Cretinism, Heredity, Hormone, Humoral, Hypergonadism, Hyperthyroidism, Insulin, Myxedema, Parathyroid, Thymus, Thyroid*)
Energy dissipation and life, 2851
psychic, 5756
utilization, 173
Engineer as advertising man, 3738
Engineering motives, 568
success, 619
England, child guidance, 2738
English, Basic, 2697
composition test, 2795, 3278
errors, 3782
examination, reading errors, 4275
home study, 5250
oral recording, 5216
research, 3270
scholarship and, 4273, 4311
simplified, 3218
speech sounds in, 4215
teaching, 5297
test, 3274
(See also *Composition, Grammar, Literature, Punctuation*)
Enrichment program, gifted children, 1307
Entelechy of Aristotle, 3380
Ennui lack, encephalitis, 5954
Enuresis in normal children, 2838
treatment, 702, 5726
Environment, artistic child, 6165
character and, 456
delinquency and, 470
effect, examination, 4280
heredity and, 304, 1082, 2557, 3538, 4990, 5907
twins, 5909
intelligence, 301
relative effects, 309
infant, 3342
intelligence and, 4783
nation and, 4684
personality and, child, 5293
psychotics, 4619
(See also *Heredity*)
Epiglottis in swallowing, 3447, 4932
Epilepsy, automatism in, 2129
cosmic phenomena and, 1125
dream in, 5951
experimental, dog, 5552
galvanic reflex in, 1154
hysteria and, 3641
nerve cell sensitivity and, 1475
patients, census, 4137
in prisoner, 2683
psychogenic, 2108
puberty and, climacterium, 387
schizophrenia and, 2119
sense alteration, 5979
Epiphysis and intelligence, 2970
Epistemology, 771, 1903, 3880, 4348
Leibniz, 768
Locke, 4837, 5739
task, 4834
(See also *Knowledge*)
Equilibrium, eel, 3023
frog, 121
frontal lobe, control, 1529
mollusk, 225
perception, 4946
vision in, 1482
Erection, mechanism, 982
Ergogram, hormones and, 2487
Ergograph, 5754
Ergography, brain injured, 2011
Ergotoxin effects, 2568
Eroticism and creativity, 4203
(See also *Sex*)

Error analysis, maze, 3011
anticipation, in learning, 4456
composition, 1816, 1828
correlates, 4402
of differences, 3813
elimination order, learning, 1596
rat learning, 4957
grouping, 2299
investigation, 5206
maze, and expectancy, 4490
of mean and σ, 1355
measurement, vs. variation, 6133
probable, in item validation, 2804
ratio, adjustment, 2803
school, Chinese, 6086
sources in factory, 3246
speech, of preschool child, 732
standard, of difference between V's, 6135
theory, 5674
time and space, 2894
touch localization, 1468
weight discrimination, 882
Eskimo, ability, 2669
child, achievement, 3679
intelligence, 478
Esthetics, 1777, 3710, 4186, 5120
experimental, bibliography, 1747, 5111
child, 2657
conduct, 3172
costume design, 6028
differential, 2184
emotions, 4399
of mathematics, 495
personality and, 3207
theory, 5135
vision and, 1794
(See also *Appreciation, Art, Beauty*)
Estimation of angles, tactile-kinetic, 808
time, 5366
(See also *Judgment*)
Estrus and adrenals, rat, 1561
(See also *Oestrus*)
Ether and sympathetic, 107
Ethnology and abnormal, 5589
index, 5113
method in, 5161
psychoanalysis and, 2099
(See also *Anthropology*)
Ethics, 3156, 3188, 3201, 5120, 5613
Arabic, 3206
child, 3343
concept, 1767
genesis, 3683
Indians, 3208
intellect and, 3175
judgment, 4195
psychology and, 3724, 3727
relativity and, 5619
sex, 2677
social, 2718
sociology and, 510, 535
textbook, 1211
will and, 3217
(See also *Moral, Morality*)
Eugenics, 1079
family allowance, 1765
Holland, 2073
significance, hypophrenia, 4116
textbook, 4992
(See also *Heredity*)
Euthanasia, critique, 4588
Evidence, 490
(See also *Testimony*)
Evolution, 1641, 1648, 2860, 3535
belief, student, 4735
causes, 3536
of handedness, 154
sex, 4066
theory, 1077, 3541
(See also *Development*)
Examination aids, 4751
anxiety, 5019
dreams, 5481
environmental effect, 4280
exemption and learning, 2789
reading errors, 4275
oral, reliability and validity, 4757
school, 605
social science, 4290
students' opinion, 3288
(See also *Test*)
Excellence and time scores, 5191
Excitability, biochemistry and, 1583
diaphragm, dog, 2524
in hypophrenia, 1137
measure, chronaxy as, 1981
nerve, 5829, 5842
neurosis, 5550
reflex arc, 5823
Excitation, concentration of, 4434
frog heart, 4048
heart nerve, 5835
rate, 1988
nerve, 3435
condenser theory, 5846
nervous system, 947
peripheral nerve, 3463
sympathetic nerves, 5822
summation, 2959
theory, nerve, 3442
threshold, retina, 844
Excitement, blood content in, rabbit, 4044
viscosity in, pigeon, 5465
respiration in hypnosis and, 355
Exercise, digestion and, 1998, 1999, 2000, 2001
effect on steadiness, 143
effects, 1004, 2004, 2015
law of, 3455
mental work and, 156
(See also *Work*)
Exhibitionism, 4133
delusion and, 2590
prevention, 6040
Exogamy theory, 5644
Exophoria, 1967
Exorcism, witch, 2692
Experience and meaning, 4844
instructions and, 2446
perception and, 43
Experiment, philosophy of, 787
reporting, 789
physiological, 4351
Experimental psychology, nature of, 1421
textbook, 5751
Expression, adolescent, 2362
bodily interpretation of, 133
emotional, 2443
cortex and, 4911
forms, 1732
specificity, 5435
Extinction, chained reflex, 4476
continuous, in child, 701
of discrimination, rat, 275
reflex, anesthesia effect, 967
resistance to, 3005
(See also *Conditioning*)
Extirpation methods, 4922
technique, 3884
Extra-curricular activities and fraternity membership, 3273
Eye, anatomy, 1513
accommodation, 1947
altered, chronaxy, 2467
behavior and, lizard, 3072
cephalopod, 1632
chameleon, 1621
color and emotion, 5404
changes, deaf mutes, 843
color filter, vertebrate, 2059, 2545
photography, 5735
conditions, newborn, 5777
deficiency, hereditary, 5473
development, chordates, 3058
divergence, 3945
dominance, attention and, 2476
effects, frog coloration, 2068
entoptic phenomena, 1453
fatigue, 1289, 1488, 3418
fish, 1630, 1633
fluids, circulation, 1454
graft, salamander, 5807
illumination effect on, 842
labyrinth reflexes, 5427
lamprey, 3031
lens model, 2897
light sensitivity, 2893
luminescence, 3942
measurement, test, 4790
model, muscle function, 4891
movements, 72
camera, 794, 3885
college success and, 2764
crab, 4033
lower vertebrate, 5896
phi phenomenon and, 3924
reading, 1262, 1265, 5165
in rotation, 1569
standards, 3681
training, 3213
muscles, 2420
anomalies, 5776
imbalance, 1967
impulses, 5844
nerve atrophy, treatment, 5782
mechanism, 1943
optic papilla, 5811
tracts, 929
pelagic, fish, 288
paralysis, 1493
physiology, 1938
position and localization, 4472
regard and, 860
preference and mirror reading, 4664
range of attention and, 4400
pupillomotor fibers, 5793
refraction, 1447
regenerated substitute, crab, 4512
rolling, 3391
schematic, 1955
snake, 1631
structure, fish, 2522
reptiles, 3073
symptoms, 5762
encephalitis, 1678
simulated vs. hysteric, 1452
tic, 2910
transplants and nerve development, salamander, 264
turning point, 4378
twins, 4557
urodele, 198
vergence calculation, 5801
vertebrate, 1620, 2436
lid symptom, 4620
reflex, 983
(See also *Cornea, Cycloplegics, Iris, Ocellus, Ophthalmology, Optic, Photopsia, Pupil, Retina, Strabismus, Vision*)
Face expression specificity, 5435
motility, child, 4817
Factor analysis, 1354, 2321, 4780, 4781, 6132
adjustment questionnaires, 1192
character, 4159
introversion, 4151
as method, 21
multiple, 2322
personality questionnaire, 5096
scholarship, 2778
Spearman test, 1377
tests, 4318
group, in mental tests, 1371
method, 1366
theory, 644, 645, 650, 651, 653, 1372, 1373, 1851, 2324, 2817, 3311, 3815, 4322, 5043, 5261, 5265, 5680, 5694, 5695
in guidance, 3305
in psychiatry, 3124, 5561
Factory, error sources, 3246
illumination, 2725
uniform, 6078
worker, attitude, 3770
(See also *Industry*)
Faculty attitude toward athletics, 629
Failure causes, woman student, 4274
in college, 2930
first-grade, 5685
(See also *Success*)
Fairy tale, child and, 2833
psychoanalysis, 3088
significance, 2690
(See also *Folklore*)
Falsification, handwriting, 5169
religious, 3189
(See also *Deception*)
Familiarity and preference, child, 2357
Family, American, 4655
allowance, 1765
attitude and economics, 5585
child and, 1203, 6146, 6157
of delinquents, 4683
in education, 4673
of gibbons, 207
guidance, 3193
history of, 4654
leadership, 1772
life, 5642
members, 498
norms, 494
position, personality and, 1717
in psychopathy, 3637
in psychosis, 5063
reactions in psychoanalysis, 333
relationships, 4178
resemblances, personality, 5996

sex in, 3709
size, dependent family, 5472
policeman vs. fireman, 5998
subcultural, 2553
vocation choice, 4287
(See also *Child, Home, Marriage, Mother, Parent*)
Fantasy, 2933, 3655
birth and death in, 5610
child, 3845, 5315
inferiority and, 3319
masturbation, 4566
of siblings, 684
(See also *Imagination*)
Fast, Indian, 3159
Fatigue, 1932, 2003, 4014, 5868
adrenalin and, 1567
auditory, 4898
carbohydrates in, 3996
carbonic acid and, 1996
changes, 2486
color field and, 960, 3947
construction workers, 2244
decision and, 4703
eye, 1289, 3418
maximum, time of, 2251
mental, 5882
stuttering and, 1204
metallurgy workers, 2245
muscle, 2499
reflex and, 2991
with nerve degeneration, 1992
noise and, 68
ocular, 1488
posture and, 145
recovery from, 1989
rest periods, 4011
school, 3793
stuttering and, 5112
of temperature sense, 49
variability in, 3466
work and, 1566
work duration and, 542
(See also *Rest, Work*)
Fear and character judgment, 1874
child, 693, 1869, 1893, 3324
dead, primitive, 2673
expression, 1514
flying, 3651
mood in personality, 439
(See also *Anxiety*)
Feeble-minded, Arthur vs. Binet test, 3307
(See also *Hypophrenia*)
Feeding habits, fish, 2067
reaction, rat, 4483
(See also *Appetite, Diet, Feed, Hunger, Nutrition*)
Feeling, 5798
association movement, 3953
blood pressure and, 3957
harmony and, 3165
knowledge and, 326
mind as, 4825
theory, 3951
type face and, 3676
(See also *Emotion, Sentiment, Shame*)
Female sex cycle, 3472
Fenestra rotunda function, 811
Ferenczi, S., obituary, 335, 2088, 2092, 3369
Ferrari, G. C., autobiography, 1426
thought of, 757
Ferret, light and sex cycle, 195
Fertility, beauty and, 2675
college, 2072
constitution and, 1075
dependent family, 5472
differential, 305, 3543, 3544
education and, 318
intelligence, 308
religion and, 5905
Fetishism, 4133
trauma and, 5544
Fetus, activity, rat, 1015
behavior, cat, 294, 2022
brain injury, rat, 5828
development, 5471
guinea pig, reflex zones, 3484
myelination, 1410
(See also *Embryo*)
Field, color, 2437
pupil size and, 5360
theory, 4339
visual, expansion, 4387
fish, 3074
with minimum light, 3411
Fight, animal, threat in, 235
Figure and ground, 3399
contrast, 5394
introversion and, 5362
intensity and quality, bee, 233
perception determinants, 3919
Finger prints, twins, 4547
Firefly, periodicity, 2538
Fireman, selection, 3759
stationary, training, 5215
First-grade tests, 665
Fish, acid stimulation, 5884
audition, 3053
blind, optic tracts, 1534
brain, secretion, 2050
cerebrum function, 1604
chemical sense, 2066
chromatophore response, 5899
cupula, 2020
earthquake response, 3036
electric perception, 1619, 1628
sensitivity, 1600
embryo, activity, 1021
eye, 1630, 1633
structure, 2522
feeding habits, 2067
flicker, 4029
fusion frequency, 4360
group facilitation, 3524
heart, control, 276
innervation, 932
nerve, 4520
iris, 3068
intersensory transfer, 4528
lateral line discharge, 1603
nerve, 118, 5833
learning, 3057
vision, 4485
light effects on, 211
migration, 2539, 3062
turning movement, 1031, 3494
muscle contraction, 3450
nerve tracts, 1049
pelagic, 287
eyes, 288
reactions, 4511
retina, 2058
visual discrimination, 4525
field, 3074
(See also *Dog, Fish, Eel, Goldfish, Lamprey, Minnow, Pike, Shark*)
Fitting, straight line, 4777
Flicker, after-image in, 2913
binocular, 3420
dark-light ratio and, 3911
effects, 3391
fish, 4029
frequency and intensity, bee, 296
fusion frequency, 1478
interpretation, 1480
method, 4393
relations, 1479
theory, 3910
threshold, child, 4878
visibility, 78
in visual path lesion, 5388
Flight, bird, 229
nerve in, 2528
insect, 219
reaction, animal, 4037
respiration and, insect, 220
silkworm moth, 262
Flowers, death and, 1653
Fly, cocoon repair, 5467
light stimulation, 215
olfaction, 1612
ultra-violet effects, 1627
Flying, fear of, 3651
Folk-lore, 2169, 4185, 5613
ethics and, 3206
vs. legal rationalization, 1790
negro, 5632
origin, 5186
psychoanalysis and, 3099
songs, 491
(See also *Fairy, Myth, Werewolf, Witch*)
Food behavior, chicken, 5455
primate, 1047
capture, spider, 4518
effect on C-R, child, 715
getting behavior, spider, 267
habits, child, 1864
insect, heredity, 4049
monkey, social facilitation, 1036
nursery school and, 2821
mania, 5974
preference, child, 743
value and taste, bee, 290
(See also *Appetite, Diet, Digestion, Eating, Feeding, Hunger, Nutrition*)
Football men, scholarship and intelligence, 4307
scholarship and, 615
(See also *Athletics*)
Forebrain, temperature control, 5428
Foreman personality, 6081
Forgetting, 1972, 3963, 3975, 5409
curve, 96
theory, 3971
in testimony, 2943
(See also *Learning*)
Forgiveness, 3156
Fork, shovel, efficiency, 551
Form board, child, 731
discrimination, bird, 1060
cat, 1059
child, 1884
peripheral, 5400
tortoise, 1607
field and pupil size, 5360
perception, 4890
butterfly, 2033
Foster care, child, 709, 679
home, 718
Fovea, dark adaptation, 5770
Franz, S. I., obituary, 1928, 5332
Fraternity membership and extra-curricular activities, 3273
men, scholarship of, 3272
scholarship and, college, 6087
size distribution, estimates, 2301
estimation, 3807
Freedom, 3382, 5120
in education, 3785
of speech, attitudes, 2216, 3219
Frequency curves, 5260
vs. difficulty, Latin, 5231
distributions, 1352, 4776, 6131
in learning, 5412
of sums of variables, 1350
theory, probability, 1842
Freshman adjustment, 2763
age and intelligence, 5241
counselling, 1301
difficulties, 1331
selection, 2762
Freud, biography, 37, 1674
critique, 4073
vs. Jung, 4074
Friendship, adolescent, 4815
boys, 3335
child, 688
Frigidity, dream in, 352
woman, 3098
Frog, brain and cord, 4923
olfactory placode, 5849
cerebrum function, 2018
chemo-receptors, 274
coloration, eye and hypophysis effects, 2068
and vision, 2046
conditioning, 3019
cord, heat output, 1547
cutaneous adaptation, 64
drug and coloration, 2045
effects on reflex, 2967
habits, 1608
heart, excitation, 4048
labyrinth function, 4949
innervation, 121
medullary reflex, 4046
optic nerve potential, 5831
retina, 3027
skin innervation, 1590
localization, 3037
spinal tetany in, 953
sympathetic action potential, 127
Frontal lesion and grasp reflex, 4467
lobes, 1529
dog, 1595
fields, 5838
grasp reflex and, 5845
memory and, monkey, 4504
Frustration and success, 5413
Fugue, 1713
in army, 386
Function affinities, primates, 1073
disorders, child, 5725
Fusion frequency, 4360
amblyopia, 4393
tonal, 1960

Future, attitudes on, 2637

Gait after optokinetic stimulation, 181
(See also *Walking*)
Galvanic reflex, 2483
in music, 2195
Galvanometer, 2849
Galvanotropism, leucocyte, 1636
protozoa, 3051, 3052
Gamble, E. A. M., obituary, 1922
Game, sibling, 684
Gamma phenomenon, 5385
Gannushkin, P. B., obituary, 4621
Gastropod borer, habits, 1617
reflex, 5892
Genealogy and psychiatry, 115
Generalization in thought, 918
touch discrimination, 5361
(See also *Abstraction*)
Genetics, analysis in, 4993
linkage determination, 4059
(See also *Heredity*)
Geniculate body, retinal projection in, 3908
Genital nerve endings, newborn, 672
(See also *Sex*)
Genitalia, sympathetic supply, 1980
Genius, 2379, 2822, 5597
artistic, 3187
case study, 3331
heredity, 3547
incomplete, 3658
temperament, constitution, 4633
(See also *Eminent*)
Geology and psychosis, 1168
Geometry, insight, 901
vocabulary, 2263
Geotropism, cat, 3065
guinea pig, 1026
rat, 209
Thyone, 3066
German Psychological Association, meeting, 3378
Society, meeting, 3890
psychology, present day, 1443
type, legibility, 4189
Gestalt, 786
in acts, rat, 5454
in aphasia, 3581
in biology, 1911
critiques, 799
curriculum and, 6088
education and, 3297, 3777
emotion and, 3958
in hypophrenia, 1103
in language, 1754
learning and, 915, 2411
motor, 5857
psychology, 2392, 2399, 2409
scholastic philosophy and, 781
scholasticism and, 2430
sign-gestalt and, 790
Thorndike and, 4829
unconscious and, 2581
viewpoint, 2859
visual, 61, 3399
motor disruption, 4883
Gestation time and temperature, 4461
Gesture, 5103, 5876
Gibbon, cortex representation, 3042
family, 207
Gill, mollusk, nerve control, 248
Girl, adolescent, 1386
attack after-effects, 2359
Chinese, vocational interests, 2758
conscience, 2332
diaries, 2329
development scale, 5325
intelligence and technical ability, 3846
ideas on education, 4743
Japanese growth, 6154
leadership traits, 3349
mother and, 3858
sex delinquent, adjustment, 4171
development, 3550, 3558, 3559
theft, 6153
vocation, 676
guidance, 2281
working, 3849
Gland control of sex, rabbit, 284
submaxillary, nerve supply, 2474
(See also *Adrenalin, Endocrine*)
Glans, innervation, 2470
Glare, 4861
color perception and, 4863
effects, 2421
elimination, 6076
prevention, 51
reaction time in, 1460
glasses, corrective, 1459
Glasses, corrective, 1459
for divers, 1941
space perception and, 875
Gliding, 4951
Glow worm spectrum, 269
Glycogen and exercise, 4041
production and, 5865
Goal gradient, 4490, 4526
Goldfinch behavior, 2515
instinct, 2523
Goldfish, vision cortex, 4531
Gonads and learning, rat, 1609
Grades, knowledge of, and scholarship, 3780
vs. scholarship, Spanish child, 5218
prediction, student, 1306
(See also *Marks*)
Gradient, hydra, 205
Graduate students, vocational guidance, 1335
Grammar, importance, 3279
preschool child, 732
(See also *English*)
Graph of test scores, 3248
Graphic statistics, 1838
Graphology, 2696, 5146, 5097, 5646, 6046, 6052, 6057
crime and, 5168, 6053
diagnostic, 3166
education and, 5125
hypophrenia and, 4676
intelligence, 655
personality test and, 1718
(See also *Handwriting, Writing*)
Grasp reflex, 4450
frontal lobe, 5845
lesion indicator, 4467
Grasping, child, 1402
tools, 4224
Graves' syndrome, cause, 4119
Gray constancy, 877
Grief, psychosis and, 2594
Ground and figure, 3399
Group factors in adjustment questionnaires, 1192
behavior, causes, 2660
character and, 4156
play, child, 2828
discussion, rating scale, 4309
facilitation, fish, 3524
individual adjustment and, 5153
work, industry, 2240
matching, 1357
matched, assumptions, 89
mental tests, 1371
participation, 1209
Grouping, ability, 1835, 3802, 4311, 6123
opinions, 4749
error, 2299
in correlation, 5676
high school, 5655
homogeneous, 2782
measurement, 1240
school, 5228
Growth, 3831
adrenal cortex and, rat, 2031
attention, 925
Buryat, 5171
child, 710, 5292
depression and, 711
cortex, 1538
curve, mental, 5967
practice and, 975
determinants, amphibia, 227
drawing, child, 3344
Gestalt constancy, 1451
girl, Japanese, 6154
of individual, 680
inequality, 3337
infant, 1381
intelligence, 2811
language, 2239
child, 3859
learning, 2945
memory of, 902
mental, 1401, 4340
Indian, 4656
physical and, 1870
moral, child, 1863
periods, characteristics, 2376
rates, 669
sex and, 2368
tests and, 4734
work and, rat, 3993
(See also *Development*)
Guard, punch press, 5205
Guidance, child, 5727
college student, 607
family, 3193
music, 6183
professions, 632
programs, 2788
rat, 2516
student, 579
vocational, 2222, 2246, 4700, 4763
Belgium, 2223
France, 2225
of unemployed, 565
results, 609
U. S. A., 2224
(See also *Education*)
Guilt in drama, 340
in child dreams, 1668
in hysteria, 5503
obsessive, 2604
personality and, 454
Guinea pig, audition, 1037
sound and, 1039
conditioning, 5891
fetus, reflex zones, 3484
geotropism, 1026
learning, 2026
limit, 4972
light and oestrus, 4960
odor learning, 1611
olfaction learning, 2037
problem solving, 3511
Gustation, housefly, 188
(See also *Taste*)
Gynecology, psychogenic factors, 2125

Habit control, 3459
culture and, 3688
elimination, child, 687
family hierarchy, 3039
formation, non-selective, rat, 2521
hierarchy, 2002
in mental hygiene, 2830
modification, galvanic reflex, 4937
motor cortex and, monkey, 1041
position, fixation of, 1023
training, psychosis, 5534
(See also *Learning, Practice, Skill*)
Hair color and emotion, 5404
vision and, mice, 5474
Halo prestige, 4173
Hallucination, 375, 4136, 4407
auditory, in blind, 5551
crime, 3577
delirium tremens, 3621
drug effects on, 424
excess movement in, 2603
sensory basis, 2607
visual, in blindness, 39
Hallucinosis, alcoholic, 370
traumatic, 5539
Hamburg University, work, 1925
Hammer work, 1799
Hand movement, 985
preference and range of attention, 4400
skill with, 2502
Handedness, 2463, 4600, 4945
adjustment, 3449
attention and, 2477
compensation and, 3468
correlates, 5437
evolution, 154
measurement, 1574
mirror reading and, 4664
motor skill and, 957
rat, 4519
reading and, 4219
sensitivity and, 1961
stuttering and, 1560
transfer, child, 3462
variability, 2479
(See also *Laterality*)
Handicap, education with, 4239
physical, and attitude, 445
(See also *Disabled*)
Handwork in special education, 1330
Handwriting, 3730
of artists, 1242
Asiatic, 540
changes, 3209
character and, 449
Chinese, 2714
in court, 5636

crime and, 5646
of d'Annunzio, 1210
delinquents, 1180
errors, child, 6096
falsification, 5169
growth, child, 3328
identical, 3205
improvement and practice distribution, 4023
marriage and, 520
measurement, 3176
paralytic, 5056
personality and, 5136, 5152
child, 3677
in psychosis, 407, 6034
quality, trend, 6122
rapid and interrupted, 3169
reversal, 2679
sex criminal, 5586
sinistral, 2663
small, 1768, 1769
speed, 5176
stutterers, 5637
vs. test in personality study, 1726
time, Chinese, 1757
twins, 4061
reared apart, 316
(See also *Graphology, Writing*)
Harmony, color, child, 6178, 6182
feeling and, 3165
(See also *Music*)
Haste, measurement, 4698
Hate, 1724
Hawaii, education in, 613
Head injury, child, 5037
Health, child, 3351
ideas of, 1380
effects, child, 5725
in industry, 1795
intelligence, social status, 4791
status, 3864
Heart accelerator inhibition, 2948
action currents, 1589
eel, 286
amphibian, nerve-free, 4507
beat and activity, bird embryo, 2035
snail, 1638
bird embryo, 4497
control, cockroach, 280
fish, 276
cycle and respiratory cycle, 5444
fish, nerve supply, 932
frog, excitation, 4048
nerve, fish, 4520
rate, drug effects on, 4001
reflex change, 1988
reaction and startle, 3461
reptile, pace setter, 278
respiration and, 5445
snake, vagus action, 193
tonus variation, tortoise, 271
turtle, vagus control, 277
(See also *Circulation*)
Heat cramp, 4452
generation in physiology, 1580
labyrinth, and pressure, 4956
output, frog cord, 1547
pain, adaptation to, 3944
production, 941
nerve, 940, 946
stimulation, cortex chronaxy and, 1535, 1536
temperature change and, 1486
(See also *Temperature, Warmth*)
Hedgehog, problem solving, 4500
Hedonism, 2405
(See also *Pleasure*)
Height and birth month, 5722
-weight ratio and personality, 4148
Hemianopsia, vision status in, 830
Hemisphere ablation, skin temperature after, 5848
Heredity of acquired characters, 315, 2549, 2554, 4049
activity, rat, 2049
in biography, 3084
blindness, 1935
chorea and schizophrenia, 4989
color weakness, 3085
concept, 1080
correlation in, 3809
crime and, 2551, 3546
cyclothymia and, 406, 5069
of deaf mutism, 4982, 4983
environment and, 304, 1082, 2557, 3538, 4990, 5907
intelligence, 301
relative effects, 309
twins, 5909
estimation of proportions, 3545
eye deficiency, 5473
formula, 2070
genius, 3547
horse, 3081
hypophrenia and, 1146, 2069, 3548
intelligence, 310, 4554
low culture, 2553
mechanisms, 5908
music ability, 302
personality and, 5991
in psychasthenia, 311, 312, 313
psychic, 317
psychological aspects, 307
psychopathy, 1700
psychosis, 1149, 2128, 3530, 3533, 5039, 5969
endogenous, 1697
racing capacity, 3540
reading disability, 475
schizophrenia, 306, 3534, 4549, 5592, 4605, 5067
song, cricket, 3033
specific formula, 2071
taste deficiency, 1649
thymus effects and, rat, 4470
type and, 3539
wildness, mouse, 1076
(See also *Cousin, Eugenics, Environment, Genetics, Linkage, Mutation, Relatives, Siblings, Triplets, Twins*)
Hibernation, 3519
temperature, 196
Highway safety, 2236
signals, 1273
(See also *Chauffeur*)
High school, 4293
adjustment, 3154
art preference, 5252
attitude scale, 623
backward child, 3798
vs. college ability, 4760
college and, overlapping, 5237
vs. college scholarship, 6116
success, 6095
concentration plan, 4752
course repetition, and college success, 5247
curriculum and intelligence, 4297
delinquency survey, 5147
entrance tests, 6176
graduate, migration, 3174
young, 2277
grouping, 5655
humor, 1857
individual difference provision, 2258
language handicap, 2766
leadership in, 586, 685
load, 5236
progress, 1829
psychology in, 2276
pupil achievement, 622
discussion, 689
scholarship, 1339
school attitude, 603
socio-economic attitudes, 636
students, college credit, 618
subject interest, 6091
permanence, 6090
History, current knowledge, 4747
drill effects, 3292
of education, 1294
psychology, 766, 3608
De Sarlo, F., 4828
Deslon, C., 1656
Destutt de Tracy, 1422
sensation terms, 8
textbook, 4344
Wundt, W., 3384
(See also *Obituary*)
psychosis in, 3116
Hoeing, incentive, 2721
Höffding, H., bibliography, 3377
memorial lectures, 4352
Home and adjustment, child, 5573
assignments, value, 5250
foster, 718
personality and, adolescent, 5700
school marks and, 1295
(See also *Family, Marriage, Parent*)
Homicide, female, 4196
in psychosis, 1139
in schizophrenia, 4597
Homogamy, *Limulus*, 268
somatic, 2074
sterility and, 314
(See also *Selection, Sex*)
Homosexuality, 400, 442, 446, 1662, 3624, 4071, 4611, 4612, 5533
feminine, 444, 457, 1660
primitive, 3667
Honesty, Czech students, 3204
(See also *Moral*)
Honor student, personality, 5090
Hormone and activity, rat, 3510
control, reflex, 954
ergogram and, 2487
influence on infants, 1413
(See also *Endocrine*)
Horopter, 57
Horse, heredity, 3081
Hospital, personnel, tests, 2591
Hotel worker test, 3224
Hue and area, 5379
brightness and, 5401
(See also *Color*)
Human figure, perception, 5393
nature, 5732
Humidity effects, mosquito, 3046
work and temperature, 1586
Humor, 2087, 4218, 5030, 5629
high school students, 1857
review, 3197
(See also *Wit*)
Humoral effect, nerve-muscle, 1551
Hunger, 5852
thirst discrimination, rat, 1040
contraction, monkey, 3502
mechanism, 3469, 4015
respiration and, 4444
variability and, 2024
(See also *Appetite, Diet, Feeding, Food, Motivation, Nutrition*)
Hydra, gradient, 205
light reaction, 4499
oxygen sensitivity, 4487
Hygiene, mental, 411, 426, 427, 716, 1109, 1693, 2121, 2124, 2144, 2610, 2618, 3119, 3775, 4106, 5568
attitude toward child, 2375
birth control and, 4985
child, 3313
college, 4296, 5225
teaching, 597
in community, 2589
congress, 2588
education, 1291, 2295, 2787, 4299
habits and, 2830
pacifism and, 3700
program, 3610
psychology in, 2624
religion and, 505
review, 4593
Russia, 5083, 5942
school, 1326, 3293
child, 4614
social conflict and, 1711
Spanish congress, 2112
teachers and, 583, 631, 2283, 3265
colleges, 4302
textbook, 2155
transients, 5945
unemployed, 511
in university, 4301
worker, 6066
reading, 1788
(See also *Neurosis, Psychosis*)
Hypergeometric series, 2303
Hyperthyroidism, 5506
Hypertonia, renal, 3464
Hypnagogic images, 2077
phenomena and invention, 3555
Hypnosis, 339, 1095, 5043
age regression by, 1096
complex induced in, 3560
conditioning and, 4572
Deslon, C., 1656
dog, 3059
motor facilitation, 1087
mood and reaction time, 3142
respiration and excitement in, 355
(See also *Mesmer, Suggestion*)
Hypochondria, 5046
Hypoglycemia, sympathetic and, 1570
(See also *Blood*)

Hypogonadism, treatment, 164
Hypophrenia, 408, 950, 1150, 1694, 2127, 2595, 3128, 3628, 4125, 4811, 5052, 5500, 5549, 5949
adjustment in, 1107
asociality, child, 2381
birth injury, 3121
brain in, 1131
structure in, 1106
capillaries in, 3862
care, 1305
cases, 5053
color impression in, 3640
community adjustment, 4135
constancy of IQ in, 5967
control, 3600
copying in, 5498
crime and, 1108
death rate in, 5959
diagnosis, 5511
disposition, 3639
drawing in, 5518
test in, 1120
East African, 2602
education, 1685, 4141, 5943
emotion in, 1111
etiology, 4618, 5068
eugenics and, 1698
significance, 4116
excitability in, 1137
form, 1706
Gestalt in, 1103
graphology and, 4676
heredity and, 1146, 2069, 3548
incidence, 3613
intelligence test in, 384
introversion and, 5994
legal concept, 5940
medical training in, 1156
memory in, 4590
parole in, 1121
patients, census, 4137
perseveration in, 4019
picture comprehension in, 5054
play in, 435
prematurity, 1136, 5971
prisoners, 4214
problem solving, 5032
provision for, 5080
vs. psychosis, diagnosis, 1132
in reading, training, 5957
research in, 1159, 3601, 4095
review, 5955
segregation in, 1133
sex difference, 3598
size and, 1101
social adjustment, 5946
activity, 2369
aspect, 5721
control, 2627
work in, 1112, 1113
special education in, 405, 5985
state program, 3603
sterilization, 2109, 4986
teaching reading in, 1316
physical training and, 3122
training in, 3633
parole and, 4101
thyroid in, 5963
verbal description, 5313
vocational guidance in, 571
work habits and, 3629
X-ray treatment, 5540
(See also *Imbecile, Mongolism, Microcephaly*)
Hypophysis ablation effects, 4508
chromatophores, minnow, 3035
disorders, 1162
enlarged, with mania, 5495
effects, frog coloration, 2068
sleep and, 363
Hypophysectomy and conditioning, dog, 2979
sex behavior and, rat, 2062
Hypothalamus lesion, cat, 4414
stimulation, 2952
effects, 4429
temperature control and, cat, 5416
Hypothesis, genesis of, 4914
Hysteria, 1713, 2609, 2617, 2593, 5071, 5074, 5526
anesthesia in, 420
blindness, 409, 1455, 2425
conditioning in, 810
cure, 5509
cyclothymia and, 4120
dog, 1634
epilepsy and, 3641
guilt in, 5503
ocular, 1452
paranoid, 402
pseudo-, 4599
sleep, 1089

Ichneumon fly, habits, 4050
Icterus, emotional, 3113
Idea, Locke on, 3383
personality and, 5089
theory of, in Plato, 5736
type, adolescence, 1403
Ideal and reality, 5744
youth, 3875
Idealism, 2871, 5472
Identification, cigarette, 5200
mechanism in Washington, G., 6004
Identity, phenomenal, 5381
Illegitimacy, 2353, 2354
Illness and conduct problem, child, 695
ego and environment in, 432
Illumination, 51
acuity and, 81, 857, 1448
visual, 40
color constancy and, 2882
contrast and, 2432
efficiency and, 2228
factory, 2725
leg movements and, crayfish, 245
momentary, and after-image, 2912
optic effect, 842
technique, 3398
work and, 1287
(See also *Brightness, Light*)
Illusion, 1502, 5753
in aviation, 1507
chick, 295
combined, 5386
of déjà vu, 814
filled space, 855
in flying, 2419
material, 1966
palisade, 4376
Poggendorff, 1476
inversion, 807
tactile-kinesthetic, 2880
Sander, 66
tactile-muscular-kinetic, 1456
theory, 2857
visual, 55, 1477
vision vs. touch, 4385
Zöllner, 851
Image, after-, in moving eye, 1481
retinal flow effects on, 3936
hypnagogic, 2077
meaning and, 4678
size, refraction and, 4877
visual, size and shape, 4869
spontaneous, 2932
thought and, 1524, 3966, 5408
Imagery, auditory, 1399
blind and seeing, 4403
map drawing, 596
music effects, 4690
tests, 1973
type, 5383
Imagination, 4407
age and, 5382
art and, 4186
child, 1887
color blends, 5363
creative, child, 6147
in work, 3231
(See also *Fantasy*)
Imbecile, preschool tests of, 388
Imitation, conditioning by, dog, 2532
monkey, 5885
(See also *Mimic*)
Immigrant, assimilation, 1761
religious change, 5628
Immigration and delinquency, 1199, 1786, 5587
Immunity, nerve system and, 2462
Impotence, psychic, 2093
sexual, 4087
Imprisonment, testimony and, 2649
Improvement and civilization, 4197
self judgment, 4944
Impulse, 1439
Incendiarism, 5143
child, 1253
sex and, 5641
Incentive, hoeing, 2721
industry, 2735
social, in Russia, 534
(See also *Motivation*)
Incest, 2670
theory, 5644
Incorrigibility, 2704
(See also *Delinquency*)
India, mysticism, 5
Indian, ability, 2669
child, achievement, 3679
emotion and interest, 512
culture, 3194
customs, 3196
emotional attitude, 513
development, 2700
ethics, 3208
fast, 3159
intelligence, 478
life, woman, 3190
mental growth, 4656
personal names, 3191
poetry, 2206
prayers, 3185
Individual differences and practice, 3969, 4626, 2449, 4401
provision, high school, 2258
group adjustment and, 5153
psychology, 327, 344, 795, 1198, 1895, 5933
critics, 328
development, 323
religion and, 4679
sociology and, 2165
technique, 320
Individuality, primitive, 5139
Induction, 1425
basis, 3372
conditioning, child, 2503
Industrial psychology, health and, 2739
London Institute, 4249
Industry, adjustment in, 3761
cooperation in, 3767
efficiency in, 2233, 4268
fatigue in, 4703
group work in, 2240
guidance in, 3752
health in, 1795
incentive in, 2735
management in, 3766
preserving, 4250
physiology and, 2724
psychology in, 1299, 4269, 5209, 5212, 6077, 6082
psychotechnics in, 3773
relations in, 3228, 6084
suggestions, 3768
test in, 4253
(See also *Drilling, Factory, Hoeing, Management, Punching, Rationalisation, Shovel, Wage, Work*)
Infant activity, 3354
erection and, 708
arm movements, 1885
behavior, 3872
biography, 2835
body temperature, 5704
death, 1876
development, 2342
education, 5290
emotionality, 4804
environment, 3342
growth, 1381
hormone influence on genitals, 1413
intelligence, 1845
learning in, 1398, 1865
light stimulation, 4824
limb movements, laterality, 2843
mental hygiene, 2823
Moro reflex, 3317
motility, 5307
newborn, responses, 1394
review, 690
noise stimulation, 4823
olfaction, 1389
plantar response, 6161
practice, 3332
premature, metabolism, 723
psychology, 2344
respiration, 265, 2364
responses, 3316
stimulus intensity and reaction, 1889
study methods, review, 3340
sucking response, 956
test reliability, 2346
testing, 740

tool using, 6164
two-year-old, 2348
visual pursuit, 671
Inference, 2946
Inferiority and fantasy, 3319
theory, 5022
Information vs. attitude, race, 3714
child, 5738
students, 5658
test, child, 6184
Infra-red and ventilation, 63
Inhibition, association and, 924, 2455
conditioning, 5879
child, 2485
crab claw, 4495
docility and, child, 1883
external, 4424
gastric, from carbohydrate, 4468
heart accelerator, 2948
rate, 1988
internal, child, 2508
irradiation of, 169
knee jerk and, 4454
motor, from transplants, 5901
narcolepsy and, 3615
proactive, in learning, 2450
retina, 4362
retroactive, 907, 1527, 2452, 3960, 5409
in poetry learning, 1975
temporal aspects, 908, 2939
reversible, in skin injury, 115
trace, child, 744
Wedensky, in myasthenia gravis, 122
Insect, sex attraction, 4038
audition in, 244, 1070, 1637
stridulation and, 190
behavior, 3487
color change, 189
circus movement, 3489
respiration control, 221
flight, 219
respiration and, 220
heredity of acquired characters, 4049
kinesthesis, 4027
learning, 2061
metabolism, 232
nerve system, 1063
orientation, 272
reflex control, 3044
respiratory nerve centers, 222
(See also *Ant, Bee, Beetle, Butterfly, Coccid, Cockroach, Cricket, Dixippus, Dragonfly, Drosophila, Firefly, Fly, Glowworm, Ichneumon, Larva, Moth, Osmia, Phasmid, Silkworm, Termite, Tick, Wasp*)
Insight, 3458, 3964
in geometry, 901
moral, in adolescence, 2334
raccoon, 4488
vs. trial and error, 93
Inspection, efficiency, 2744
Instability, child, 2824
(See also *Adjustment*)
Instinct, 142, 1062, 2484, 4846
character and, 5104
death, 5916
description of, 987
development and, 964
disorder, 5514
intelligence and, 2523
maternal, and thyroid, 963
nesting of rabbit, 284
in religion, 4674
spider, 282, 4981
theory, 2013
wasp, 283, 1616, 4978
Institution, 2160
behavior, 5584
Instructions, experience and, 2446
Insulin and parasympathetic, 3988
Insurance salesmen, 2217
Integration, child, 2333
cortical, 4374
Intelligence, 652, 1360, 3308, 3959
chemistry achievement and, 5664
age and, 3830, 5687
vs. age differences, siblings, 3531
freshman, 5241
Alaskans, 478
animal, 1062, 2052, 2056
review, 2017
attention and, child, 728
attitude and, student, 1296
survey courses, 6128
Australian, child, 3821
birth month and, 1370
order and, 1081
brain and, 3579
weight and, 2461
capillaries and, 719
change, college, 1349
charity cases, 4681
child, 1855, 3870, 3874
behavior and, 2341
personality and parent, 5992
vitamin B and, 2327
citizenship and, school, 584
commercial students, 5668
correlates, 2498
curriculum choice and, 4297
Czech student, 3204
deafness and, 1489
delinquency and, 2662, 4682, 5147, 5166
eidetic imagery and, 1977
vs. emotion, 450
emotional adjustment and, 5688
environment and, 4783
epiphysis and, 2970
ethics and, 3175
fertility and, 308
finances and, college, 2765
gain in, 2810
graphology, 655
growth in, 2811
health and, social status, 4791, 3864
heredity of, 309, 310, 1082, 4554
environment and, 301
high, 5289
education and, 5302
school vs. college, 4760
selection, 720, 2262
of imbeciles, 388
Indian, 4656
infant, 740
instinct and, 2523
interest and, 1363
intestinal protozoa and, 721
involuntary movements and, child, 1166
judgments, 5150
in learning, 4473
literature appreciation and, 2659
low, detection, 378
man and animal, 552
memory and, child, 3836
metabolism and, delinquents, 6041
monkey, 2544
nature of, 3962
negro, 3699, 5159, 5160
child, 3671, 3826
nurses, 569, 3745
obstetrical patients, 5470
occupation and, 6138
office management and, 6083
perseveration, and scholarship, 624
philosophy, 4849
play and, child, 675
Poles, 1774
practical, 2505
practice effect, 3965
prediction, 3306
private vs. public school, 1866
profession and, 1802
in psychosis, 5561
quotient, constancy, 5967
interval and, 667
divisor, 2812
Otis, reliability, 5273
vs. personal constant, 657
preschool variation, 2316
Stanford vs. Herring, 663
variation, 662
raccoon, 4488
rating from photograph, 4183
reading ability and, 1762
achievement, 5671
in religion, 4674
religious groups, 6117
Russian child, 3877
scholarship and, 2280, 2777, 3794, 3829, 4273, 5230, 6114
college variation, 1304
football men, 4307
Japan, 4325
teachers, 600
Scottish children, 666
sex differences, 5691
sibling resemblance, 3532
similarity, 4551
relatives, 4550
sociology of, 3186
speed in, 4320, 2818, 5272, 5697
status and, 2185
Chuvash, 3712
scholarship, 1302, 2308
structure, 4914
syphilis, 5707
test, 661, 1846, 1850, 2318, 2325, 2813, 2814, 2815, 3310, 3820, 3822, 3828, 4785, 5266, 6137
Africa, 4201, 4202
Alpha, revised, 1844
American Council, norms, 4326
Australia, 4798
Beta, revised, 5686
Binet, 1365, 4799
-Bobertag, 1847
bilingualism and, 1736
blind, 4792
child, 4796
college, 4755
compared, 6140
comparison, 2834
Dearborn, 1359
early, 4784
German Binet, 2317
in hypophrenia, 384
infant, 1845
language in, 4317
handicap, 2816
Merrill-Palmer, 4793
practice, 3429
preschool, 1364
reading ability and, 654
review, 5689
Russia, 3823
school, 4328
score and culture, 5144
equating, 3827
short, 4321
social differences, 4323
Spearman, 3825
superior adult, 4795
technical ability and, girls, 3846
Tartar child, 3817
tonsil and adenoid effect, 3309
training and, in science, 6116
types, 1848
twins, 319
value, 1366
variation, preschool child, 2839
varieties, 22
vocabulary difficulty and, 1367
in vocation, 4234
vocational selection, 6102
walking age and, child, 5712
Witmer, 2319
Intensity and acuity, *Drosophila*, 3497
auditory, 4361
discrimination, 5803
color discrimination, 2896
flicker frequency, bee, 296
judgment, tone, 5359
light and dark adaptation, 5373, 5374
pitch and, 1970
quality and, figural, bee, 233
speech, 4211
stimulus and reaction, 4464
infant, 1889
test, 1258
variation and, in work, 4719
(See also *Audition*)
Intent in learning, 2454
Intellect in Thomas Aquinas, 36
Interest, Chinese student, 2720
college student, 4759
emotion and, Indians, 512
growth, girls, 5325
intelligence and, 1363
inventory, 1888
learning, 4304
measurement, 2638
musical child, 1406
occupational, and achievement, 2793
private vs. public school, 1866
questionnaire, child, 4810
students, 4750
reading, Chinese, 6013
Russian youth, 5322
school learning, 2257
subjects, 2798, 6091
permanence, 6090
vocation and, 3796
test, vocational, validity, 4692

vocational, 543, 3769
Chinese girls, 2758
eminent women, 573
permanence, 5730, 6171
sex difference, 1297
(See also *Motivation*)
Internationalism, education, 3778
teaching, 2261
Internship, psychiatry in, 4587
Interpretation of bodily expression, 133
Interpreting, 519
Interruption effects, 3000
maze and retention, 994
Intersexuality and adrenal cortex, rat, 2031
Interval frequency, music, 4638
IQ constancy and, 667
Interview technique, 2752, 3302, 3758
Intestinal reflexes, 4478
Intestine movement and labyrinth, cat, 4042
protozoa and intelligence, 721
Intimidation in advertising, 4257
Intoxication tests, 5921
(See also *Alcoholism*)
Introspection practice, adolescents, 2841
Introversion, 1171, 2644
factor analysis, 4151
figure-ground and, 5362
hypophrenia and, 5994
mirror drawing and, 4635
vs. neuroticism, 3135, 5989
projection and, 3147
psychosis and, 6003
review, 4627
scale, 2630
test, 2636, 4164
validity, 4150
Intuition, 1433, 2931
in psychopathology, 1690
Invention, 553
hypnagogic phenomena and, 3555
sources, 4075
Inventory, interest, 1888
personality, 4624
study habits, 4308
temperament, 1185
Invertebrate, study methods, 2021
Involution psychosis, 1691
Iris, fish, 3068
musculature, 2962
reptile, 4536
role, 1954
shark, 4535
Irradiation, audition, in child, 692
conditioned reflex, 2478
of excitation, 4434
inhibition, 169
touch localization, 1471
Isolation effects, rat, 1017
schizophrenia and, 5522
social behavior and, chick, 1054
(See also *Social*)
Isopod, orientation, 191
Italy, test collection, 658
Item form, attitude test, 1760
validation, P. E. in, 2804
validity, 5693

Jaensch, E. R., appreciation, 3898
James-Lange theory, precursors, 5402
Japanese, aptitudes, 2711
girl, growth, 6154
phonetics, 2705
psychology text, 2863
vital capacity, 2488
work curve, 484
Jaundice, emotional, 4129
Jealousy, 3170
child, 1873
as neurosis, 5482
pathological, 3594
Jew, culture contacts, 5601
in legerdemain, 5602
music, 3725, 3726
puberty, 3873
religious objects, 329
ritual significance, 3093
Job analysis, 4225, 4242, 4254, 4263, 5202
Joint sense, temperature and, 1458
Journal, *Archives of Speech*, 1913
Argentina, 1920
Beitr. z. Charakter. u. Persönforsch, 2386
child psychiatry, 5350
Dutch, 3902
Jugoslavia, 1900
Philosophy of Science, 777
psychoanalysis, 4083
list, psychology, 1912
Social Research, 5755
trade, 3749
Journalism scale, 3285
Jost's law, 3960
Joy in work, 160
(See also *Laughter*)
Judgment, moral, adolescent, 5599
age and intelligence, 5150
angles, adolescent, 3387
basis and personality, 2942
brightness, 853
consonance and, 1936, 6009
character and fear, 1874
distance, wasp, 5902
methods, 5590
moral, 4195
personality, child, 1186
reliability, 3153
photograph, 5648
pitch, 878, 4907
reliability, 1356
self, 4944
test, teaching, 3800
tempo, 5605
time, 4370
control, 2890
tone intensity, 5359
touch, 5368
of distance, 2886
with joint, 5387
values, determinant, 3656
(See also *Estimation, Rating*)
Jugoslavia, journal, 1900
Jung vs. Freud, 4074
psychology of, 5475
psychotherapy of, 4073

Kiesow, F., biography, 3887
Kindergarten, 1830
Kinetotropism, 259
Kinesthesis, 4902
insect, 4027
maze learning, 3994
muscle size and, 5796
sensitivity, 2732
space judgment, 5370
space perception, 5356
temperature and, 1458
touch and, 45, 4890
Klages, L., philosophy, 4843
Kleptomania, 4081
psychoanalysis, 2575
Knee jerk, 136, 959, 986
apparatus, 28
inhibition and, 4454
latency, 4957
modification, 965
time element, 973
voluntary modification, 995
Knowledge and attitude, race, 3670
boundaries of, 20
Czech student, 3204
derivation of, 2395
feeling and, 326
forms, 1525
progress, achievement and, 921
sensory basis, 3940
theory of, 1903
(See also *Epistemology*)
Knox test, 2315

Laboratory, child, China, 724
clinical, at Münster, 397
criminology, 497
Wyoming, 4854
Labyrinth, 1449
in alcoholism, 1683
cells, mouse, 281
chronaxy, 1532, 1557
calorization and pressure, 4956
cupula, fish, 2020
denervation, 4936
endocrine effects, 4480
-eye reflexes, 5427
function, frog, 4949
pigeon, 4941
impulses to cortex, 105
eye muscles, 5844
innervation, frog, 121
intestine movement, and, cat, 4042
mechanisms, 5856
minnow, 3078
orientation, pigeon, 5898
pike, cupula, 3080
psychosis, 419
reflex, aviator, 970
circulation and, 5431
stimulation and reaction time, 961
(See also *Cupula*)
Labyrinthectomy, sequelae, 979
Lactic acid, muscle contraction and, 1577
Lamarckism, 4049
Lamellibranch, light effects, 2060
Lamp, variable, 5740
Lamprey, eye and accommodation, 3031
olfaction, 200
visual cells, 1069
Lange, C., biography, 4347
Language, 1763
accent and pitch discrimination, 5221
analysis, 1754
aptitude test, 2790
auxiliary, 3719
barrier and social life, child, 3326
change, 2214
child, 4334, 6152
child, 736, 4805
conditioning and, 3703
contact, 3687
development, 2239, 3184, 4194, 5177
child, 3346, 3859
disturbance, 2173
drum, Bantu, 4647
experiments, 1267
functions, 3735
growth, 5928
handicap, high school, 2766
instruction, 5114
intelligence test, 4317
introduction, deaf mutes, 3386
learning, 2167
meanings, 4175
mystical, 5126
primitive, 4671
problems, 1784
simplification, 2697
study, grammar and, 3279
tests, adequacy, 5270
usage, 5115
value, birds, 194
(See also *Accent, Argot, Bilingualism, Consonant, Interpreting, Slang, Speech*)
Lark song, 1052
Larva, beetle, behavior, 187
Larynx mechanism, 4191
(See also *Voice*)
Laslett delinquency test, validity, 5147
Latency, knee jerk, 4957
Lateral line nerve, fish, 118
response, 5833
Laterality determination, 5453
infant limb movements, 2843
test, 4374
(See also *Eyedness, Footedness*)
Latin and character, 2274
difficulty vs. frequency, 5231
training and scholarship, 635
Laughter, 1092
child, 1853
inadequate, 5565
muscle tone and, 4013
(See also *Joy*)
Laurence-Moon-Biedl syndrome, 1677
Law and anthropology, 6027
aptitude test, 5210
attitudes, 3219
crime control, Belgium, 3731
delinquency, 5164
graphology, 5636
penal, Germany, 2691
primitive, 500
psychiatry, 2200, 4604, 5082
psychoanalysis in, 2579, 2580
psychology and, 2207, 2208, 2212, 5148
on psychopathy, 5645
psychosis in, 4103
crime and, 430
unwritten, 1790
(See also *Crime*)
Leadership, 3701, 4644, 5625, 6024
adolescent boys, 5316
college, correlates, 2713
factors, 1746
family, 1772
girl, 3349
high school, 586, 685
personality in, 462
school, 541

teaching of, 2177
types, college, 1785
Learning, 915, 2493, 4916, 5878
active, school, 4291
activity, rat, 1032
amount of reward and, 101
animal, 1016, 2536
ant, 4529, 4530
anticipation in, 1976
errors in, 4456
apparatus, 2401
arachnids, crustaceans, 5886
archery, 4002
barbital and, rat, 2040
beetle, 5887
brain and, 5439
belonging in, 2447
brain lesion and, rat, 1987
cerebral dominance in, 898
chicken, 4026
chimpanzee, 4544
college, 2458
conditioning, 2972, 5863
control, 3459
maze, rat, 3486
crab, 246
crayfish, 186
curve, 897
forms and practice, 98
law of effect and, 900
teaching of, 2294
delayed incentive, 4057
reaction, monkey, 1028
development in, 909
diet and, mouse, 1044
rat, 4052
dog, 4494
drive and, rat, 3482
drug effects, 2936
effects, coffee, 2097
emotion and, 895, 3423
effects, 926
efficiency, 912
error elimination, 4490
order, 1596
examination exemption and, 2789
experiment, 977
external conditions and, 1974
fish, 3057
frequency in, 5412
in Gestalt, 2411
gonads and, rat, 1609
goldfish, group facilitation, 3524
growth of, 2945
individual differences, 4401
infancy, 1398, 1865
insect, 2061
insight vs. trial and error, 93
intercorrelations, rat, 2542
interest in, 4304
interocular transfer, 1464
knowledge of results in, 3013
language, 2167
laws of, 2986, 3961
effect, 3010, 3456, 4920
least effort, rat, 5463
length and difficulty in, 177
limit, monkey, 4961
rat vs. guinea pig, 4972
logical, 2794
maze, 5855
blind, 4438
child, 1890, 4801
factors, 4473, 4526
error analysis, 3011
kinesthesis in, 3994
length, chick, 1055
length, rat, 2510
rat, 3039, 4516
social facilitation, 2699
vs. syllable, 2975
meaningful material, 92
metabolism and, rat, 3498
methods and retention, 1562
monkey, 1597
motivation, 4514
motor, 5434
age and sex difference, 988, 1571
child, 4802
motivation, 4460
movement, 3455
Nereis, lizard, guinea pig, 2026
nervous mechanism, 5866
number maze, 2457
observations, 3433
odor, guinea pig, 1611
olfaction, guinea pig, 2037
order, maze blinds, 4974
pleasure-pain theory, 135
poetry, 906
retroaction in, 1975
whole-part problem, 3430
without practice, 2966
praise vs. blame in, 5405
preoccupation and, 5410
principles, 2002
proactive inhibition, 2450
punishment and, 2456, 4004, 4954
rat, 5464
attention and, 1993
reward and, 4947
rat, 228, 1038, 1053, 2516, 2526
delayed reward, 2547
error elimination order, 4975
sex difference, 1064
vitamin B deficiency, 2512
repetition in, 3006
length and, 913
reproduced patterns, 4919
retroactive inhibition and, 907, 908, 1527
review, 591, 4918, 5864
reward in, 179
effect, 923
sensory organization in, 2938
snail, 218
spinning, 5442
stimuli, maze, rat, 2030
survival and transfer, 3424
symbol, 359
theory, 966, 2453
Thorndike on, 1521
time vs. work limit, 4933
transfer and age of associations, 893, 1991
retinal, 1466
unconscious, 99
unintentional, 2454
unit, 5410
visual, cerebral dominance and, 1465
whole-part, 2934
word series, 3427
(See also *Conditioning, Effect, Forgetting, Habit, Insight, Maze, Punishment, Recall, Reward, Skill*)
Lecture vs. broadcast, psychology, 13
vs. reading, 4740
Leech, nerve system, 1623
Legerdemain, Jews in, 5602
Legibility, German type, 4189
(See also *Reading*)
Leibniz, epistemology, 768
Leipzig Institute, 3881
Leisure activities, 4663
child, 4650
Length and difficulty of learning, 177
repetition in learning and, 913
Lens in accommodation, 847
chemistry, bibliography, 4893
model, eye, 2897
Leprosy, 2599
Lesion, retinal, 859
Letter, child, 3262
Leucocytes and emotion, rabbit, 4398
galvanotropism, 1636
Liberality, college, 625
education and, 1793
Library reading, primary grades, 2260
(See also *Reading*)
Lie, 3668
child's, 2842
detection, 1011, 4188
motives, 5100
pathological, 464
significance, 2664
(See also *Deception, Pseudologia*)
Life course, 2408
mechanical view, 1431
Light action on organisms, 1019
adaptation, *Volvox*, 3048
auditory discrimination and, 2888
avoidance, crayfish, 3523
course in eye, 1955
effects on fish, 211
entoptic, 3942
intensity and dark adaptation, 5373, 5374
Drosophila, 2029
measurement, 4894
oestrus, guinea pig, 4960
reaction, bee, 1018
crayfish, 3526
hydra, 4499
shrimp, 2016
worm, 4532
reception, 5765
response, ameba, 255
bee, 1629
cortex, 4028
trematode, 5888
sensitivity, *Daphnia*, 257
stimulation and, 2893
sex cycle and, starling, ferret, 195
sodium vapor, 1952
stimulation, fly, 215
infant, 4824
stimulus, sensitivity after, 2899
threshold, 5805
apparatus, 5738
(See also *Brightness, Dark, Vision, Ultra-violet*)
Lighting, industrial, 6076
nursery school, 4909
(See also *Illumination*)
Limb development, child, 1402
extra, excitation, 3021
Limen vs. average in span, 1964
in color saturation, 3931
difference, brightness, 3917
taste, 2438
two-point, differential, 53
vertical movement, 3403
(See also *Threshold*)
Liminal, pronunciation, 1901
Limulus, homogamy, 268
Linkage, human, 4059
Lip reflex, 3452
Lipmann, O., obituary, 1924, 3362, 3892
Literature appreciation, 2708, 2794, 5817
intelligence and, 2659
criticism, 501
association and, 4845
neurosis and, 392
abnormal psychology and, 1234
opium effects, 5910
psychoanalysis and, 4190, 5023
psychology and, 1912
(See also *Drama, English, Poetry*)
Little's disease, 3592
Lizard, color perception, 3076
eye and behavior, 3072
habits, 3056
learning, 2026
Localization, cerebral, 945
cortical, 931, 3438
monkey, 933
rabbit, 4417
depth, 4386
Descartes, 2412
eye position and, 4472
pitch and, 5357
pressure vs. pain, 1969
skin, 2881
skin, frog, 3037
pressure, 2914
sensations, 1498
sound, 2441
taste center, 3441
touch, 5384
contralateral transfer, 1470
errors, 1468
training, 1469
speed, 1471
vasomotor, cortex, 3984
vision, 949
audition and, 4045
Locke, epistemology, 5739
on ideas, 3383
theory of knowledge, 4837
Locomotion, crab, 4509
(See also *Walking*)
Logic, 5752
non-Aristotelian, 1910
(See also *Induction, Inference*)
Loudness measurement, 1463
phase and, 3392
(See also *Audition*)
Love, 1724, 3164
emotion and, women, 2922
Platonic, 750
service, 3178
social, 3216
transference and, 4567
(See also *Emotion, Sex*)
Lupus and personality, 1725
Lynching, interpretation, 1775

Machine age, narcissism and, 2582
assignment per operator, 558
control standardization, 570
psychological function, 4575
Magic, 2632, 5613
art and, 5592
cadaver in, 4185
child, 5711
dream and, 5488
functions and incidence, 5598
neurosis and, 5623
in paranoia, 5548
psychoanalytic theory, 5591
psychotherapy and, 5931
religion and, 5621
Trobriands, 502
(See also *Superstition*)
Major subjects, student interest, 4759
Malingering test, vision, 4864
(See also *Deception, Simulation*)
Mammal, motor cortex, 3500
pupil, 1057
sense biology, 2429
(See also *Ape, Bear, Cat, Chimpanzee, Coati, Dog, Elephant, Ferret, Gibbon, Guinea pig, Hedgehog, Horse, Monkey, Mouse, Porcupine, Primate, Rabbit, Raccoon, Rat, Reindeer, Sloth, Squirrel*)
Man, suicide, 531
Management in industry, 3766
office, and intelligence, 6083
(See also *Industry*)
Mania, delusions and, 2598
Manipulation, child, 1411
Map drawing and imagery, 596
Marginality, sex delinquency, 1748
Market research, 2722, 2748
Marks, school, 608, 1812
home and, 1295
sex and, 4311
(See also *Grades*)
Marriage, 488, 5132
age, 1750
divorce and, 1771
guidance, 3193
handwriting, 520
history of, 4654
neuroticism in, 4217
policemen vs. firemen, 5998
psychosis and, 3632
rate, differential, 5130
selection and birth order, 5131
success, factors, 4641
theory, 5644
training for, 2179
(See also *Celibacy, Divorce, Family, Home*)
Masturbation, clitoral, 3558
fantasy, 4566
Matching groups, 648, 1357
statistics of, 4313
test, 2805
Materialism, 6035
Maternity beliefs, Jews, 5107
delusional, 3576
sexuality and, 2566
Mathematics used in calculus, 3261
diagnosis, 2752
difficulties in statistics, 587
esthetics of, 495
prediction, 3277
prolegomena, 5752
(See also *Acalculia, Algebra, Arithmetic, Calculus, Computation, Geometry, Hypergeometric, Number, Subtraction*)
Mathematicians, undergraduate schools of, 638
Maturation, 3851, 5878
practice and, chick, 2513
(See also *Development*)
Maturity, 2205
intellectual, vs. brightness, 5223
private vs. public school, 1866
Maze activity, initial, 2053
adjustable, 1914
alleys, difficulty order, 1022
anticipation in, 5450
mouse, 4502
behavior rat, 4484
blinds, difficulty, 4974
choice and length of path, 5469
expectancy, 4490
factors, rat, 4526
finger, 5351
interruption and retention, 994
learning, 5855
ant, 4529
blind, 4438
child, 1890, 4801
control, rat, 3486
error analysis, 3011
elimination, 1596
factors, 4473
kinesthesis in, 3994
rats, 1038, 2516, 3039, 4516
stimuli, rat, 2030
length and learning, chick, 1055
rat, 2510
number, 2457
rat, sensory control, 3026
reliability, 2974
retention, rat, 1029
rotation behavior, rat, 1065
retention and, 1562
size, effects, 3014
stylus, 5335
swimming, rat, 315
vs. syllable learning, 2975
test for blind children, 4792
unit, 4342
(See also *Learning*)
McCosh, J., on emotions, 5402
McDougall, W., psychology, 1416
Mean, error of, 1355
geometric, law of, 3409
vs. limen in span, 1964
Meaning, child, 731
development, 2239, 3184
experience, 4844
imagery and, 4678
music and, 539
nonsense syllables, 94
ontogeny, 4194
Measurement, aptitude, 2806
education, 1298
noise, 12
origin, 3180
interest and personality, 2638
psychological, 640
small limen unit, 5760
in sociology, 4659
Mechanical ability, 2505
test, 1800
aptitude, problem boys, 5314
siblings, 1078
industry, guidance in, 3752
Mechanics, achievement testing, 2746
Mechanism and education, 3297
vitalism and, 1908
Medicine, education in, 2279
psychology in, 365, 393, 3607
psychiatry and, 410
social, 5079
Mediumship, 1664, 2573, 4062, 4085, 5020, 5922
tests, 4063
(See also *Occultism, Trance*)
Meeting, A. P. A., 1915, 2864
child welfare, 3834
Deutsche Gesellschaft für Psychologie, 1899, 3378, 3385, 3890, 4835
mental hygiene, Spain, 2112
Midwestern Association, 27, 780
New York Branch, A. P. A., 749
optometry, 5398
Personnel Research Federation, 2230
psychoanalytic congress, 334, 5485
psychotherapy, 4826, 5034
Rocky Mountain Branch, 2848
Section I, A. A. A. S., 1896
Southern Society, 722, 5343
vocational guidance, 5208
Western Psychological Association, 788
Melancholia, 4121
in encephalitis, 1688
history, 4118
respiration change in, 1167
stuporous, 5981
Melody and rhythm, 4686
(See also *Music*)
Memorial, Salmon, T. W., 1897
Memory, 2388, 2944, 3963, 4846, 4916
animal, 2026
advertising, 3756, 4720
child, 668, 6169, 682
descriptive analysis, 812
digits, 6139
frontal lobe, monkey, 4504
growth, 902
in hypophrenia, 4590
incidental, and pleasantness, 3973
meaningful, 1522
morality and, 3163
musical, 506, 5415
narcosis, bee, 4524
number, 904
place, bee, 4036
pleasantness and, 914, 1972
position, 3970
raccoon, 1051, 5459
reflex and, 214
repression and, 2451
respiratory state and, 4466
time, bee, 291, 4539
tonal, in music, 1208
melody recognition and, 6036
transcendent reference in, 1436
unconscious, 99
test variability, 4786
young child, 3836
(See also *Recollection, Retention*)
Menstruation, 2171
efficiency and, 2234
personality and, 2629
psychic influence on, 5441
psychosis, 455
sex and, monkey, 3020
shock and, 3003
habituation, 5877
toxin, 5486
Mescal effects, 3100
visions, 3101
Mesmer, biography, 1909
Metabolism, activity and, rat, 1622
catatonia, 5530
correlates, 2498
dinitrophenol and, 978
emotion and, 1516
insect, 232
intelligence and, delinquents, 6041
learning and, rat, 3498
mental effort and, 131
work, 4939
muscle, 3996
nerve control, 4017
personality and, 3148
premature infant, 723
race differences, 1556
reaction time and, 989
schizophrenia, 5537
during shoveling, 551
sleep and, 4076
smoking and, woman, 4998
temperature and, 4246
rat, 4390
wind effects, 4469
Metaphysics, 2390
of induction, 3372
Metapsychology, 5349
Method in ethnology, 5161
personality study, 3146
physiological, 4351
psychoanalysis, 5476
psychology, 767, 3900
Mexican, Arthur vs. Binet test, 3307
Microcephaly, 1170
Microglia in mongolism, 3590
Micropsia, 4391
Midwestern Psychological Association, meeting, 27, 780
Migraine, 5567
Migration, 2684
bird, 1610, 3069
fish, 2539, 3062
high school graduate, 3174
Military psychology, 2247
(See also *War*)
Mimic ability, child, 4817
(See also *Imitation*)
Mind, aspects, 3371
body and, 1432, 1895, 2406, 2854, 3443, 4355
in psychosis, 6
brain and, 928
evolution, 5348
as feeling, 4825
history of, 16
metaphysics, 3365
nature of, 3376, 3882
Miner, psychoneurology of, 1290
Mining, industrial relations in, 3298
nervous system and, 1917
physical mechanism, 9
reality and, 3889
Minnow, audition, 3032
brightness discrimination, 4533
color change, 4517
hypophysis and, 3035

labyrinth, 3078
sound production, 3028
Mirror drawing and introversion, 4635
imaging, twins, 2555
reaction, towhee, 4523
reading, 4664
tracing, punishment in, 168
vibration, stroboscopy, 5399
(See also *Delinquency*)
Misdemeanor, juvenile, 3856
Modality and brightness equivalence, 1940
Modeling, child, 4331
Modiste, test, 2249
Mold, phototropism, 204
Mollusk, equilibrium, 225
gill, nerve control, 248
swimming movements, 4515
(See also *Cephalopod, Gastropod, Lamellibranch, Snail, Squid*)
Moment distributions, 642
frequency distribution, 1352
Money, child and, 1875
attitudes on, 1397
training, child, 6162
Mongolism, 5505
microglia in, 3590
Monkey, abstraction in, 1056
anatomy, 1599
cerebral artery ligation, 4055
choice and effort, 1597
color discrimination, 4031
conditioning and brain lesion, 279
cortex and, 3492
corpus callosum section effects, 4039
cortical localization, 933
lesion and behavior, 3495
delayed reaction, 5462
field studies, 3485
habit and motor cortex, 1041
howling, field study, 4491
hunger contraction, 3502
imitation, 5885
intelligence, 2544
learning limit, 4961
delayed reaction and, 1028
memory and frontal lobe, 4504
motor cortex, 5420
pattern discrimination, 1613
parturition, 3496
premotor cortex, 5418
problem solving, 1035
sex and menstruation, 3020
size discrimination, 239
social facilitation, 1036
stomach response, 3508
tail area in cortex, 117
Montessori, psychoanalysis and, 1826
Mood effects, music, 1224
reaction time and, 3142
(See also *Personality*)
Moral behavior and training, child, 3325
belief, college student, 2666
consciousness, 467, 468
deficiency, 3203
development, child, 1863
for social levels, 3848
insight, adolescence, 2334
judgment, adolescent, 5599
child, 5701
test, 2825
(See also *Conduct, Ethics, Honesty*)
Morale, 2188
child, and parent unemployment, 2330
work, 1269
conditions, 4239
Morality, 3201, 3672, 5145
basis, 5140
cinema, 1244, 3711
intelligence and, 3175
memory and, 3163
Parisian children, 3753
shame and, 2201
testing, 6039
(See also *Ethics*)
Morphology, delinquent, 4172
Mortality and sun spots, 3112
(See also *Death*)
Mosquito, temperature and humidity effects, 3046
Moth, color preference, 1614
Mother-child relations, 1184
employment and child attitude, 4820
instinct and thyroid, 963
love, 5304
rejection, 6158
Motility, infant, 5307
psychosis, 2137
sleep, child, 4812
in stuttering, 5631
Motion study, 2730, 4236
apparatus, 4248
child, 4000
divers, 4008
method, 555
space and, 2439
(See also *Locomotion*)
Motivation, 2969, 3016, 3428
apparatus, rat, 5331
differential, monkey, 5462
learning, 4460, 4514
rat, 1053
(See also *Drive, Hunger, Incentive, Instinct, Interest, Need*)
Motive, engineering, 568
suicide, 348
theory, 756
Motor ability, 5853
measurement, 1007
preschool child, 3838
in stuttering, 536
test, 3477
chronaxy, 3453
cortex, bear, 3030
extirpation, rat, 3501
monkey, 5420
porcupine, 4510
skill and, primates, 1041
disruption, Gestalt, 4883
facilitation, hypnosis, 1087
Gestalt, 5857
inhibition from transplants, 5901
learning, 5434
age and sex differences, 988, 1571
child, 4802
performance and audition deficiency, 852
perseveration, 5446
rhythm, child, 3356
scale, child, 3345
sketching, 1523
skill, child, 735
handedness, 957
speech, deaf mutes, 5618
theory, consciousness, 3467
test, child, 5280
training effects, 180
totalities, 2008
vs. verbal learning, 177
Mountain child, music ability, 3733
Mouse, activity and temperature, 2055
heredity of wildness, 1076
labyrinth cells, 281
learning and diet, 1044
maze anticipation, 4502
mutant, 4548
size discrimination, 4527
temperature regulation, 2044
vision and hair color, 5474
Mouth, touch recognition, 4390
Movement, ameba, 254
annelid larvae, 240
annoyance and, 2481
apparent, 5375
ambiguity in, 850
fish, 4029
visual, 3914
arms, infant, 1885
associated, 134
feeling, 3953
audition, 831
automatization, 2007
cat, cortical control, 2533
disturbances, 371
emotion and, 885
eye, 72
fish, 3494
forced birds, 1050
gamma, 5385
hand, 985
horizontal, perception, 3419
illumination and, crayfish, 245
involuntary, and intelligence, child, 1166
learning of, 3455
limb, laterality in infant, 2843
nerve and, in transplants, 2039
perception and, 3402
dragon-fly larva, 3063
pH, alga, 199
placing, cortex control, 2511
problem solving and, 920
rhythmic, Platyhelminthes, 2028
spaced, 2008
threshold, 2887
touch perception, 3943
vertical, limen, 3403
visual, after-effect, 1945
vocabulary, 4680
voluntary, electromyogram, 2504
timing, 149
Müller-Lyer, F. C., biography, 1923
Multiple choice, hedgehog, 4500
factor analysis, 2322
Münsterberg, H., biography, 1919
Murray psychoneurotic inventory, reliability, 3139
validity of, 5147
Murder, 2656
child, 5499
passional, 5133, 6021
sex, 4677, 5162
(See also *Homicide*)
Murderer, characteristics, 3728
Muscle action, 991
current, 167, 2492, 4477, 4931
in effort, 4025
activity, 2012
blood supply and, bird, 3521
sympathetic and, 1542
chemistry, 148
chronaxy, 4016
work and, 159
contraction, chemistry, 1555, 2965
dynamograph study, 1584
fish, 3450
lactic acid and, 1577
strength and sympathetic, 110
theory, 175
contracture, 2964
control by brain, bird, 2960
efficiency and oxygen, 137
eye, 2420
fatigue, 2499, 2991
color field and, 960
fiber, rhythm in, 128
response, rhythm, 2460
submaximal response, 1997
glycogen changes, 4041
nerve endings in, 120
excitation, humoral, 551
heterochronism, 2980
isochronism, 2976
physiology, 5881
relations, 5834
perception, 2732
physiology, 984
relaxation, 4448
resistance vs. tension, 4437
sense, boys, 1495
test, 1496
size in kinesthesis, 5796
slow, intensity-duration curves, 158
strength, 2998, 3448
age and, 4024
striated, contraction and tonus, 2009
tonic vs. tetanic, 3012
tonus, 1568, 2963, 3992
graph, 4474
laughter and, 4013
lesion and, dog, 139
psychotics, 4589
twitch and activity, 171
work and load, 3998
rat, 2973
recovery and, 1003
(See also *Relaxation, Tonus*)
Museum behavior, 3705
Music, 3682, 5135
ability, heredity, 302
mountain child, 3733
appreciation, 2195, 2709
psychotics, 1708
capacity, 1258
child, 2829, 2831, 3338, 6183
chord ratios, 487
cross rhythm, 1218
effects, 4690
emotion in, 6051
experience, 4192
interest, child, 1406
interval frequency, 4638
Jew, 3725, 3726
meaning and, 539
memory, 506, 5415
pitch and, 1208

mood effects, 1224
perception, 1264, 4303
adenoids and, 823
primitive, recording, 6054
production, 4686
scholarship, prediction, 2710
school, 4744
objectives, 1322
in social control, 1758
sound and, child, 1872
symbolism, 3160
teacher training, 4756
teaching, school, 4762
test, 1268, 3674
reliability, validity, 477
talent, 1226
therapy, 2164
training in hypophrenia, 3633
(See also *Composer, Consonance, Harmony, Interval, Melody, Noise, Orchestra, Singing, Song, Tone*)
Musicians, familiarity with, 4736
Mutant, mouse, 4548
Mutation, rat, 1598
Myasthenia gravis, Wedensky inhibition in, 122
Myelin and behavior development, 4421
development, fetus, 1410
growth, cortex, 119
Myelination and diameter, 3978
Mysticism, 6020
India, 5
symbolism of, 479
Myth, 3158
birth and death in, 5610
genesis, 4329
woman in, 5127
(See also *Folklore*)
Myxedema, 3582
emotion in, 3583
psychosis and, 429

Nail biting, 2838
Name, personal, Indians, 3191
Napoleon, attitudes, 4559
Narcissism, machine age and, 2582
neurosis, prognosis, 324
treatment, 2083
Narcolepsy, 436, 4579, 5965
inhibition and, 3615
Narcosis, 5491
ability in, 5477
injuries, 4105
memory and, bee, 4524
electro-, 2955
(See also *Drug*)
Nasality, voice, 2685
Nation and environment, 4684
National Research Council, history, 2866
Nationality and delinquency, 5634
preferences, 3716
Canadians, 4176
Nederlandsch Tijdschrift voor Psychologie, 3902
Need resolution by substitute acts, 1576
time sense and, 866
Negation, obsession of, 1703
in paresis, 4122
Neglect, child, 748
Negro abilities, 5119
bibliography, 5109
attitude toward, 3714
bush, 4187
child, eidetic phenomena, 2941
intelligence, 3671, 3826
race attitude, 5588
visual pursuit, 671
college entrance tests, 6093
color blindness, 6016
constitution, 6015
folklore, 5632
intelligence, 5160
hypophrenia in, 2602
intelligence, 5159, 3699
personality, 5616
woman, reading, 3690
reading, 3722
research on, 3693
scholarship, 5183
sex life, 1743
status, 5175
student, 2755
personnel study, 592
Neighborhood characteristics, 1237
Neologism, 3588
Neonate, eye conditions, 5777
vision, 1382
review, 690
Nereis, learning, 2026
light reaction, 4959
Nerve, action current, 1539, 2956
Dixippus, 4496
temperature and, 2954
activity, 1544, 4412, 4830
theory, 106, 114
ammonium effects on, 111
anatomy, 3439
auditory, and cochlear phenomena, 5787
basis, skin sensitivity, 2895
cell activity, 1528
sensitivity, epilepsy and, 1475
centers, crab, 1602
sleep, 2949, 2958
tonus, 5827
conductance and excitation, 3435
conduction, 5424, 5826
snail, 4505
synapse, 5830
time, 4925
connection, sex and pituitary, 5832
control, ciliary movement, 2014
crab claw, 4537
metabolism, 4017
mollusk gill, 248
respiration, 5859
insect, 222
subordination, 1605
core conductor, 1549
correlates, vision, 5785
cut, activity, 4927
degeneration and fatigue, 1992
dental, chronaxy, 3983
depressor, action current, 2472
development and eye transplants, salamander, 264
diameter and sense specificity, 3981
discharge, adrenalin, 1995
lateral line, 1603
disease, children, 412
chronaxy and, 4601, 4602
disorders, 2123, 4126
dorsal root components, 1545
fibers, 1530
drug action on, 116
electric responses, 930
endings, genital, of newborn, 672
in muscle, 120
excitability, 5829, 5842
excitation, audition, 4394
condenser theory, 5846
electrical, 3440
heart, 5835
humoral conduction, 4408
threshold, 3463
theory, 3442
tickle and, 868
fibers, afferent, in dorsal roots, 1540
diameter, 3978
distribution, 1531
isolation, 2466
in flight, bird, 2528
free amphibian heart, 4507
function, nomenclature, 1983
growth, *Amblystoma*, 1593
heart, fish, 4520
heat production, 940, 941
impulse, 1533
in cord, 3982
pathways, 2960
sensory, 3991
speed, 2469
influence on digestion, 147
integrity, significance, 1203
irritability, child, 5708
lesions, pyramidal, cat, 1046
mechanism, eye, 1943
learning, 5866
mental disturbances in childhood and, 3831
metabolism, review, 943
movement in transplants, 2039
-muscle excitation, humoral, 1551
heterochronism, 2980
isochronism, 2976
physiology, 5881
relations, 5834
summation of excitation in, 2959
system, crab, 4541
thresholds, 1546
myelin and behavior, 4421
optic, fiber groups, 929
patterns, regeneration, 4056
plasticity, Brachyura, 246
polarized, action current, 2957
potential, frog, 5831
respiration, 1982
response, drug effects, 1541
lateral line, 5833
secretory and motor, 2474
section, sensation recovery after, 4419
segmentation, *Amblystoma*, 2023
sensory, anesthesia, 5841
size, chronaxy and, 2471
stimulation, rabbit, 5417
studies, 1554
supply, body segments, 3522
cochlea, 3437
crab claw, 4495
fish heart, 932
frog skin, 1590
glans, 2470
labyrinth, 4936
frog, 121
limb, 4430
optic, 5793
pupil reflex, 3416
pupillary reflex, 1552
reflex, dog, 3514
shark, 3516
sympathetic, 1980, 3520
vertebrae, 2465
sympathetic, excitability, 5822
system, acid and, 1624
behavior and, *Amblystoma*, 2519
Astacus, 2543
autonomic, 5426
psychoanalysis and, 3096
cerebral, action currents, 123
Ciliata, 226
cortex, 1553
demonstration, 3436
diet and, rat, 2518
division, snake, 3070
earthworm, 4522
evolution, 4431
excitation in, 947
glycogen during activity, 4425
in immunity, 2462
insect, 1063
leech, 1623
mind and, 1917
pathology, 934
plasticity, 4010
strychnine action, 938
sympathetic, afferent, 5425
type and hypnosis, 4572
in X-ray, 2527
threshold, 1550
touch elements, 2530, 2531
tracts, fish, 1049
vision, 2911
transmission, auditory, after cochlea lesion, 4904
vagus, 1543
vasodilator, action, 5824
vestibular, chronaxy, 927
flexor reflex and, 2490
(See also *All-or-none, Autonomic, Axon, Brain, Chronaxy, Cord, Dorsal, Extirpation, Myelin, Nucleus, Pyramid, Refractory, Sensitivity, Silent, Sympathetic, Synapse, Vagus, Vasodilator, Vasomotor, Vegetation*)
Nest behavior, bird, 1043, 1045
rabbit, 3481
Neuralgia, refractory, 5515
Neurasthenia, 414, 5074, 5526
adrenals and, 5939
child, 1707
dyspepsia, allergy, 5542
ovarian hypofunction and, 1712
sexual, 3123
Neurology textbook, 3980
Neuron theory, 5840
Neuropathology, textbook, 431, 1124
in U. S. S. R., 1138
Neuropathy, child, 2620
normal, 2838
Neurosis, 769, 2601, 2628, 3110, 3126, 4112, 5043, 5952
accident incidence and, 4712
anemia, 2141
anxiety, 2126
associations in, 4615
asthma in, 395

auto drivers, 2605
cause, 4124
child, 747, 1385, 1877, 2098, 3570, 3571, 6167
treatment, 2340
compulsion, 5061
conditioning and, 172
crime and, 1776, 5512
endocrines and, 4092
experimental, bird, 3018
genesis, 2625
inventory, reliability, 3139
laboratory, 1701
literature and, 392
magic and, 5623
mental hygiene, 5942
narcissistic, prognosis, 324
treatment, 2083
nature of, 322, 364, 377, 382, 433
Oedipus complex and, 4573
organic, 360
post-traumatic, 4594
psychoanalytic concept, 2082
in rat, 231
regression in, 1669
religion and, 2086
review, 418
social aspects, 4090, 4583
feeling, 4131
suggestion in, 1097
symbol in, 1658, 2614
symptoms, child, 3327
theft and, 4081
threshold in, 5550
twins, 1682
will and, 421
young child, 4822
(See also *Compulsion, Fugue, Conversion, Hygiene mental, Hysteria, Migraine, Neurasthenia, Obsession, Phobia, Psychasthenia, Psychosis, Pyromania*)
Neuroticism, deaf, 3661
dream and, 2561
vs. introversion, 3135, 5989
inventory, 3646
in marriage, 4217
prisoner, 4162
questions, validity, 6000
scale, 2630
critique, 4165
validity, 4152
test, 4167
(See also *Emotion*)
New York Branch A. P. A. meeting, 749
Newt, nerve regeneration, 4056
Nietzsche, F., philosophy, 4851
Night habit, animals, 4492
Nipple sensitivity, 3950
Noise and audition defect, 4905
digestion and, 4009
effects, 2741
efficiency and, 62, 68, 3967
measurement, 12, 1444, 1446, 1463, 1483
(See also *Music, Tone*)
stimulation, infant, 4823
Nomadism, 2366
Nonsense syllables, difficulty, 2448
vs. maze learning, 2975
meaning, 94
scores, reliability, 3431
Normal curve, graphic computation, 5262
history, 1840
school, intelligence, 2810
Normality, 4147
criterion, 4316
Nose, autonomic and, 1986
Nostalgia, 4094
theory, 2929
Novelty, child's reaction to, 683
Nucleus ruber, cat, 4415
Number concepts, 4177
memory, 904
Nuisance, adolescence, 3857
Nurse, intelligence, 3745
trainability and, 569
selection, 2727
success prediction, 567
Nursery school, 1338, 1342, 5666
attendance, 4800
child disease and, 2844
education, 6085
food habits and, 2821
lighting, 4909
practice, 5306
Nursing, education, 2120
psychiatric, 401
in psychosis, 372
Nutrition, child, 2339
learning and, rat, 2512
psychological factors, 5528
(See also *Appetite, Diet, Feeding, Food, Hunger*)
Nystagmus, 3391
brain diagnosis, 4381
tumor, 1169
caloric, Ménière's disease, 5880
rabbit, 5456
crab, 4033
judgment errors, 4382
reduction by practice, 3054
unilateral disappearance, 124
vertical component, 5867

Oat, phototropism, 2514, 4963
Obedience, child, 6180
Obituary, Apponyi, A., 753
Babinski, J., 2385
Becher, E., 3891
Clark, L. P., 3360
Downey, J. E., 2870
Ferenczi, S., 335, 2088, 2092, 3369
Franz, S. I., 1928, 5332
Gamble, E. A. M., 1922
Gannushkin, P. B., 4621
Lipmann, O., 1924, 3362, 3892
Warren, H. C., 1898, 2873, 3893
Objectivity, 3476
definition and test, 2417
Objectification, 86
Observation, 3948
child, sampling, 5278
controlled, 4821
methods, 5759
tests, 100
Observer reliability, 5624
Obsession, guilt, 2604
of negation, 1703
origin, 1144
realization of, 5058
(See also *Compulsion, Neurosis*)
Obstetrics patients, intelligence, 5470
Ocellus vision, bee, 298
ant and bee, 261
Occult experience, 854
Occultism, 1654, 1664, 1671, 2573, 3551, 5009, 5029, 4590, 5911
bibliography, 2081
Europe, 4086
history, 5014
philosophy of, 5015
(See also *Apparition, Apport, Astrology, Clairvoyance, Mediumship, Poltergeist, Telekinesis, Telepathy, Survival, Trance*)
Occupation ability patterns, 3229
child, 3842
classification, 509
course, results, 1319
crime and, 4212, 5181
fertility, 3544
intelligence and, 5267, 6138
interest, achievement and, 2793
morale, 5197
norms, intelligence, 5267
prestige, 6065
stability, prisoners, 5639
tests, 5647
therapy, 1161, 3619
child guidance, 376
mental patients, 5554
(See also *Actor, Advertising, Agriculture, Application, Appointment, Apprentice, Artist, Aviation, Brakeman, Business, Chauffeur, Clerk, Commercial, Constitution, Costume, Counselling, Dentist, Dredge, Dressmaker, Employer, Employment, Engineer, Fireman, Foreman, Hotel, Insurance, Job, Journalism, Miner, Modiste, Nurse, Physician, Piano, Police, Postal, Profession, Railway, Sales, Selection, Soldier, Surveyor, Stenographer, Switchman, Telephone, Typewriter, Unemployment, Vocation, Welder, Work*)
Odor learning, guinea pig, 1611
(See also *Anosmia, Olfaction*)
Oedipus complex, 5644
in neurosis, 4573
in pediatrics, 349
conflict, 2100
reactivation, 4078
Oestrus behavior, rabbit, 3481
Official, social psychology of, 1190
Olfaction, 5771
bee, 263
beetle, 292
bird, 4545
cortex mediating, 1985
cumarin, 2431
fly, 1612
infant, 1389
insect, 4038
lamprey, 200
learning, guinea pig, 2037
placode, frog forebrain, 5849
psychoanalysis and, 3564
reptile, 3041
tick, 4538
wasp, 4976
Ontology and psychology, 18
Ophthalmology, directory, 1950
textbook, 48
(See also *Eye*)
Opinion, 5414, 5593
editor, 1739
student, Japan, 2681
(See also *Belief, Prejudice, Propaganda*)
Opium addict, woman, sex life, 4072
effects, literature, 5910
Opportunity and ability, 3740
Optic nerve, pigment in, 1934
tract in blind fish, 1534
(See also *Eye*)
Optics, 56, 2878
Optometry, examinations, 1965
meeting, 5398
Oral examination, reliability and validity, 4757
erotism, paraphrenia, 5925
Orchestra, composer preferences, 482
Order of difficulty, score and, 2756
Organism in psychology, 4832
Organization ability in writing, 628
life, 523
principles, 2729
problems, 4665
Orientation, 4887, 4902
animal, 292, 1606
ants, 208
appearance and, 2416
bee, 237, 4036
-wolf, 285
blind, 3361
control, fish, 1031
crustacea, 273
disorder, 4138
disturbance, 4139, 4396
eye position and, 4472
frontal lobe control, 1529
insect, 272
isopod, 191
labyrinth and, pigeon, 5898
loss, 2876
in maze, 2053, 4526
rat, 201, 1020
rotation effect, rat, 1024
vision in, 1482
Oscillation recorder, 782
Oscillograph, 10, 23
study, phonetics, 5806
Osmia, habits, 3045
Osmosis, crab, 4047
Ossicles, role, 1487
Otis I.Q. reliability, 5273
Output and variability, 992
Ovary hypofunction, neurasthenia and, 1712
sex and, rat, 1601
Over-compensation, 3468
-lap determination, 3304
Oxford group movement, 4209
Oxygen, alcohol and, 2559
blood in fatigue, 2003
consumption, ear, 2459
mental work, 2005
effects, ameba, 2032
muscle efficiency and, 137
sensitivity, hydra, 4487
want, 4940

Package appeal, 4695
Pacifism, mechanisms, 4182
mental hygiene and, 3700
(See also *War*)
Pain, 1511, 2418, 2921
alcohol effects, 4375

bodily vs. mental, 2585
disturbance, 819
endings near capillaries, 2429
evaluation, 5966
heat adaptation to, 3944
hidden, 3140
pharyngeal reflex and, 3415
vs. pressure localization, 1969
psychic, 380
referred, 5426
reflex, 3939
sense, 1450, 5798
sensitivity, 3408
from sound waves, 2422
theory, 76
touch and, 1959
tooth, 5367
(See also *Analgesia*)
Paired comparisons, 5590
order in, 5679
Pairing, random, average difference, 3792
Palisade phenomenon, 4376
Palsy in child, 4819
Parabiosis, chronaxy in, 2953
Parallax, time, 4372
Parallelism, 751, 1432
Paralysis, 4096
ocular, 1493
recovery from, 5870
Paralogia, 3589
Paramecium, fiber systems, 2064
Paranoia, 4089, 4113, 5046, 3132
anal element, 2078
case, 3117
conditioning and, 2500
delusion in, 1102
magic in, 5548
mechanism, 4084
primitive mentality and, 5049
in prison, 5531
reactions, deaf, 6001
symptoms, 402
transmitted, 3620
Paraphasia, 5045
Paraphrenia, oral, erotism in, 5925
phantastica, 3591
Parathyroid conditioning, conditioning and, 2482
Parasympathetic and insulin, 3988
Parent attitude toward child, 2375
child behavior and, 2837
schizophrenia, 4115
behavior and child adjustment, 746
child adjustment and, 2145, 2146
attachment, 351
attitude, 2336
emotions, 3348
resemblance, intelligence, 310
problems and, 2358, 4333
cousin, effects on offspring, 4553
education, 593, 716, 2339
bibliography, 4282
results, 5317
emotional honesty, 1384
intelligence and child personality, 5992
occupation and values, 3656
reading, 5291
ability, 5240
relations, psychotics, 4619
unemployment and child morale, 2330
vocational guidance by, 3841
(See also *Child, Family, Home*)
Paresis, delusion, 4122
drawing in, 3593
handwriting in, 5956
improvement by radiothermy, 1119
psychosis of, 3109
Paresthesia, cocaine, 3577
Parkinsonism, 1145
Parisitism, ant, 3064
Parole of the feeble-minded, 3603
prison, 3694
psychotics, 2626
hypophrenia, 4101, 1121
Partnership, employee resistance, 2726
Parturition, monkey, 3496
psychosis, 4109
(See also *Puerperal*)
Passion murder, 6021
Pathography, 443
Pathology, brain, 4924
concepts, 4609
Pathways, labyrinth, 105
Pattern discrimination, fish, 4525
monkey, 1613
perception, new foveal, 47
attention, sense mode and, 896
Payment plans, 2747
Pearson, K., appreciation, 2302
Pecking, development in, chick, 2513
Pedagogy, 4917
Pedophilia, 390
Penis envy, 3558
Perception, 50, 1477, 1502, 3948, 5768
age and, 5382
attitude in, 4910
black-white, 2916
with both hemispheres, 1467
cerebral dominance and, 839
closure in, 817
child, 6156, 6169
continuous variation in, 2905
data and common sense, 3880
depth, 2435
test, 3413
descriptive analysis, 812
determinants, 3923
electric, fish, 1619, 1628
equilibrium, 4946
extra-foveal, 47
figure determinants, 3919
ground and, 3399
form, 4890
butterfly, 2033
geometric figures, 4392
Gestalt and, 781, 4376
horizontal movement, 3419
human figure, 5393
immediate, 4348
inner, 876
movement and, 3402
muscular, 2732
musical stimuli, 4303
objects of, 1451
race difference, 1261
reference in, 1436
space, 1485, 2875, 5389
child, 3871
speech, 2891
standpoint and, 2416
tactual, and time, 2902
theory, 2857
in India, 4897
time, 801, 2414
touch, 4866
movement in, 3943
with translocated tissue, 5392
type, 5383
variations, 4867
visual, development, 838
experience and, 43
speed, 3946
weight, 2898
(See also *Sensation*)
Performance vs. Binet test, 3307
constitution and, 2961
disposition, 4707
difficulty and, 2947
intensity and variation, 4719
(See also *Efficiency*)
Perimetry, 5808
Periphery, color sensitivity, 1497
form discrimination, 2920
Periodicals, education, 5224
reading, students, 5658
Perjury, 4188
Persecution delusion, conditioning and, 2616
Perseveration, 1978, 2635, 2982, 3017
intelligence, scholarship, 624
introversion and, 3147
motor activity, 5446
in psychosis, 3636
scholarship and, 3280
subnormal child, 4019
test, 4405, 5433
Persistence, child, 5854
measures, 2993
test, 448
Personal constant vs. I. Q., 657
values, 656
identity in paranoid hysteria, 402
values test, 463
Personalism in Rumania, 5102
Stern, 3145
Personality, 441, 453, 4160, 4917, 5091
adjustment and cheating, 6025
high school, 3154
remedial reading and, 5957
age and, 1191
ambiguous figure and, 5362
analysis, 5993
art and, 465
athletic girl, 3143
balance, 4623
basis, 5581
behavior defects and, school, 3866
biochemistry and, 3663
biological factors, 1174
blank, child, 1882
body measures and, 4148
type, 5988
child, 2331
of psychotics, 4619
Chopin, 2631
color sensitivity and, 2909
constancy, child, 5323,
constitution and, 5106
convict, 4628
correlates, 2498
criminal, 4198
cripple, 2149
crowding and, 2158
culture and, Bantu, 5604
cyclothymic, 5078
deaf, 3661
before death, 3103
delinquent, 1180, 3650
boy, 438
delusion and, 368
determinants, child, 1412
development, 398
child, 5698
Dickens, C., 3141
difficulties, 458
child, 5997
environment and, child, 5293
esthetics and, 3207
expression forms, 1732
family position and, 1717
resemblances, 5996
fear in, 439
Fieschi, 2592
foreman, 6081
Goethe, 3149
guilt and, 454
handwriting and, 5136, 5152
child, 3677
health and, 2646
heredity of, 1082, 5991
of historical character, 4634
home and, adolescent, 5700
honor student, 5090
ideas and, 5089
improvement, 6002
inventory, 3139, 3150, 3151, 4624
Bernreuter, 2632
validity improvement, 5099
judgment basis and, 2942
child, 1186
Kierkegaard, S., 3144
in law, 2207
leader, 462
lupus and, 1725
measurement, 2638, 4630
measures, intercorrelation, 4158
medium, 4063
menstruation and, 2629
metabolism and, 3148
methods, 3146
negro, 5616
only child, 3648
organization, 1172, 5085
in psychosis, 381
of parent, 2145
child, and parent intelligence, 5992
Poe, E. A., 3137
practice and, infant, 3332
primitive, 1716
peoples, 1177
profiles, 1189
psychopathic, 2130, 3106, 5073, 5553
questionnaire, factor analysis, 5096
rating, adolescents, 4629
agreement, 3153
reading ability and, 1762
recreation and, 3136
review, 4161
rhythm, 3133
salesmen, 3654
scale, 2630
validity, 4163
scholarship and, 1194
self estimate, 4149

social, 4622
aspects, 5575
crisis, 537
society and, 1195
in sociology, 5574
speech and, 4631
rating, 6006
statistics in, 2639
of Stirner, M., 1730
study, 1179
America vs. German, 459
handwriting vs. test, 1726
stuttering and, 2168, 3659, 5095
Swinburne, A. C., 2147
teacher, and child adjustment, 3275
test, 1183, 1197, 5580, 6005
deaf, 5094
graphology and, 1718
review, 5579
subject's attitude, 5105
validity, 5092
testimony and, 452
testing, 461
training, 5571
trait, 1196, 5577
determination, 5101
trance, 5915
types, 1173, 3653, 3662
actor, 2151
twins, 3083, 3649
vocational guidance, 3152
voice and, 2148, 4144
(See also *Allport, Ascendance, Attitude, Bernreuter, Character, Depersonalization, Depression, Disposition, Docility, Downey, Introversion, Mood, Rorschach, Temperament*)
Personnel, attitude toward, 4701
in industry, 4268
physiognomy in, 5087
Research Federation, meeting, 2230
student, 1340, 3235, 5667
work, college, 1300, 3806
usefulness, 3783
(See also *Counselling*)
Perspective, 2417
illusion in blind, 1456
Perspiration and mental effort, 3460
Perversion, 1728
reality and, 2089
sex, 480, 5035, 5057
Pessimism, 451
pH and reflex excitability, 5871
shark and squid retina, 4051
Phallic phase, 3562
Pharynx reflex, 2043
pain and, 3415
Phase and loudness, tone, 3392
Phasmid, autotomy, 4980
Phenomenology, criticisms, 4852
Philippine Islands, textbook treatment, 5243
Philosophy, 784, 5352
bibliography, 5346
Descartes, 759, 764
frame of reference, 796
German, 4104, 4111
India, 5
Klages vs. Carus, 4843
Nicholas of Cusa, 775
Nietzsche, 4851
psychology, 765
psychotherapy and, 5977
of religion, 1215
(See also *Descartes, Determinism, Dewey, Dualism, Epistemology, Hedonism, Idealism, Identity, Image, Leibnitz, Locke, Materialism, Metaphysics, Ontology, Phenomenology, Realism, Vitalism*)
Phi phenomenon, 3914
eye movements and, 3924
Phobia, 3110
cat, 3554
Phonetics, child, 4809
instrument study, 5806
Japanese, 2705
of vowels, 3167
(See also *Speech, Voice*)
Photograph in applications, 1278
judgment from, 5648
rating intelligence from, 4183
Photography, pupil, 5797
Photometry, precision, 69
Photopsia in blindness, 39
Photoptometer, 3888
Phototropism, *Daphnia*, 3075
Dixippus, 4521
coccid, 192
fish, 211
mold, 204
oat, 2514, 4963
polarized light, 5769
protozoa, 249, 250, 256
Physical defect in delinquent boys, 3314
training, and mental defect, 3122
Physician, industrial accident prevention, 6060
Physics of cause and effect, 32
Physiognomy, character and, 2640
in personnel, 5087
in psychosis, 3606
Physiological psychology, textbook, 3886
industry and, 2724
subjective, 2562
status, 33
teaching, 3173
Piano teaching, 2170
Picture book, child, 5303
comprehension in hypophrenia, 5054
unconsciously motivated, 5483
Pigeon, acuity, 2027
auditory reflex, 1006
blood viscosity in excitement, 5465
labyrinth function, 4941
orientation and labyrinth, 5898
pupil contraction, 4443
Pigmentation, eye, and sensitivity, 824
Pike, labyrinth cupula, 3080
Pitch, child voice, 5300
clang, 3934
deficiency, education, 881
discrimination and language accent, 5221
intensity and, 1970
judgment, 878, 4907
localization and, 5357
rhythm and, 2426
sense in music, 1208
singing, child, 2829
speech, 4211
test, 1258
tone mass, 5358
vowel, 527
Placard effectiveness, 4721, 4241
Planarian, rheotaxis, 3480
sense physiology, 4966
vision, 3049
Plant movements, 197
(See also *Alga, Mold, Oat*)
Planting effects, 5214
Plato, theory of ideas, 5736
Platyhelminthes, rhythmic movement, 2028
(See also *Planaria*)
Play, 358, 4935
adolescence, 3855
appetite, sleep, child, 737
child, 3842, 5717, 5311
artistic, 6145
tradition and, 1400
group, child, 2828
in hypophrenia, 435
intelligence and, child, 675
interests and reading ability, 1762
nursery school, 2363
review, 3323
significance, 2211
theory, 2988
(See also *Recreation, Toy*)
Pleasantness of educational psychology topics, 2768
incidental memory and, 3973
memory and, 1972
nature of, 3925
retention and, 914
retroactive inhibition and, 894
Pleasure experience and color preference, 1519
-pain theory of learning, 135
(See also *Hedonism*)
Pliancy quality of objects, 86
Poe, E. A., personality, 3137
Poetry, bibliography, 5111
as catharsis, 5547
Poverty, child ideas, 3835
Indian, 2206
learning, 92
method, 906
whole-part problem, 3430
psychiatry and, 1147
Poggendorff illusion, 1476
Pointing experiment, 1565
Poisoning effects, CO, 2117, 2583
parasympathetic, and accommodation, 1503
Poland, penal code, 3675
Pole, intelligence, 1774
Police and clairvoyance, 5002, 5010
Policeman, selection, 3759
Policewoman, functions, 5123
Political attitude scale, 1738
Politics and education, 3717
psychotherapy and, 5609
scholarship and, Germany, 4689
war attitudes and, 4180
Poltergeist, 5013
Polydactylism, 3537
Population density and reproduction, 5466
fluctuation, 5906
movement, 2684
phenomena, Africa, 2204
problems, 1650
research, 2548
Popularity, child, 698, 1408
Porencephaly and vision, 4416
Porcupine, motor cortex, 4510
Position, attention and, 1520
habit, fixation, 1023
memory for, 3970
Postal service tests, 562
Posture, sleep, catatonia, 5517
in child, 742
cortex and, dog, 3527
fatigue and, 145
mechanisms, 5856
reflexes, 4455, 5872
Potassium, chronaxy and, 1575
Potency, disturbances, 6026
Power, 5596
psychological, 1695
will to, 3476
Practice, archery, 4002
distribution, optimal, 4023, 4915
effect on differences, 3445
intelligence, 3965
variability, 2968
growth curve and, 975
individual differences and, 2449, 4401
infant, 3332
intelligence test, 3429
learning curve forms and, 98
learning without, 2966
maturation and, chick, 2513
nystagmus reduction, 3054
reliability and, 5683
teaching, concentration, 3263
variability and, 3969, 5436, 5850
(See also *Habit, Jost, Skill*)
Praise effect on steadiness, 143
in learning, 5405
Prayer, Indian, 3185
(See also *Religion*)
Precognition, 4080
Prediction, chemistry success, 5664
child development, 681
difference method, 646
educational psychology, 5251
first-grade reading, 5671
grades, student, 1306
mathematics, 3277
music scholarship, 2710
reformatory adjustment, 6022
scholarship, 2296, 3282, 3306
freshmen, 595
success, 4797
algebra, 3252
dentists, 572
college, 2266, 5253, 5254, 5255
review, 5256
nurses, 567
school, 2791
teaching, 4746
trainability, nurses, 569
variance, 1353
vocational adjustment, 3791
success, 2736, 2796
(See also *Prognosis*)
Preference, color, child, 5705
pleasant experience, 1519
composer, of orchestras, 482
consumer, 3249
for nationalities, Canadians, 4176
radio, 4688
unconscious, 3955
Pregnancy order and development, child, 694
psychosis, 455

Prejudice, 3716
race, 3181
(See also *Opinion*)
Prematurity and hypophrenia, 1136
Preparation for tests, 3259
Prepuce, temperature and touch sensations, 903
Preschool child, education, 3844
bibliography, 4282
Pressure, bright and dull, 3925
circulation in, 4005
contact, 4890
localization and, skin, 2881
vs. pain localization, 1969
sense, 5798
work and, 3457
Prestige, 5593
effect on opinion, 4193
halo, 4173
occupational, 6065
value, vocation, 5213
(See also *Belief*)
Pride, 1423
Priest languages, 5126
Primacy of report in attention, 88
Primate, cortical extirpation, 3034
food behavior, 1047
functional affinities, 1073
(See also *Chimpanzee, Monkey, Sinanthropus*)
Primitive art, 499
child drawing, 3336
culture, 4187
value content, 532
education, 6023
fear of dead, 2673
homosexuality, 3667
individuality, 5139
law, 500
life, 3190, 4666
magic, 502
mentality and paranoia, 5049
psychosis and, 5066
music, recording, 6054
personality, 1716
psychology, 516
religion, 4079, 5180, 5183
sex life, 1743
shamanism, 1787
society, 1246
suicide, 5184
thought, 4669, 4671*
woman, 1751
Primitives, 2192
Principal, school, 1834
Prior entry, one modality, 3937
Prison classification, 5151
escapes, 2676
paranoid in, 5531
parole, 3694
psychologist, 5179
psychosis, 1118
system, Rumania, 517
testing, 4639
(See also *Crime*)
Prisoner, disposition, 4672
epileptic, 2683
mentality, 4214
neuroticism, 4162
occupational stability, 5639
Ohio state reformatory, 5116
self rating, 2643
Probability, 1441, 2312
function of sum, 4766
theory, 1842
units, 2799, 4312
(See also *Statistics*)
Problem behavior test, boy, 2641
solving, 97, 2534, 3959, 4914
arithmetic, 610
chimpanzee, 4544
hedgehog, 4500
human, 3964
hypophrenia, 5032
insight vs. trial and error, 93
monkey, 1035, 1597
movement and, 920
raccoon, 3022, 4488
rat, guinea pig, 3511
(See also *Delinquency*)
Production and glycogen, 5865
Profession, guidance toward, 632
intelligence and, 1802
training, concentration, 3263
(See also *Occupation, Vocation*)
Prognosis in narcissistic neurosis, 324
(See also *Prediction*)
Progress, knowledge of, achievement and, 921
Projection, 2982, 4071
child, 1874
retinal, geniculate body, 3908
schizophrenia, 2623
type and, 3147
Promotion of college teachers, 630
rate, clerk, 3739
Propaganda, 4193, 5241, 5593
basis, 4717
against crime, 4642
effects, 2633, 5635, effectiveness, 4168
(See also *Opinion*)
Proportion in drawing, 1200
Proprioceptive conditioning, child, 707
threshold, 3403
Prostitution, 5134
influences, 5122
sadism and, 515
Protensity, term, 1916
Protozoan, color reaction, 2019
feeding of parts, 258
galvanotropism, 3051, 3052
intestinal, and intelligence, 721
phototropism, 249, 250, 256
responses, 253
(See also *Ameba, Ciliate, Paramecium, Volvox*)
Pseudologia, 390
fantastica, 464
(See also *Lie*)
Psychasthenia, 1104, 3110, 4138
with Basedow, 5558
child, 1134, 1707
heredity in, 311, 312, 313
Psychiatry, bibliography, 2132, 5556
biogenetic law in, 4585
child, character test, 5536, 4616
journal, 5350
church, 2622
classification, 5042, 5047
concepts, 4128
crime and, 1266, 2159, 3707
Germany, 2691
forensic, 2200
genealogy in, 1115
German, 3118
internship, 4587
law and, 5082
medicine and, 410, 2111
modern, 5541
nursing, 401
out-patient, 3119
problems, 4140
psychology and, 1100, 3626
tests, 415
reliability in, 5048
religion and, 2176
social, 2687
social worker, 4603
textbook, 1687, 2133
teacher colleges and, 4302
teaching, 5960
training, 5970
clinic and, 5980
in U. S. S. R., 1129
(See also *Psychosis, Psychotherapy*)
Psychoanalysis, 327, 332, 1093, 1655, 1657, 1674, 2194, 2586, 3549, 3565, 4068, 4074, 5008, 5018, 5023, 5027, 5043, 5485
advertising and, 1274
anthropology and, 522
art and, 4560
autonomic and, 3096
biography and, 2079
biological basis and, 356
cases, 5919
child, 1667, 2098, 3552, 4067
study, 4563, 5932
Chinese review, 2563
clinical, 5005
compulsions, 337
conditioning and, 1564
congress, 334
constitution and, 1665
criminals, 2570
critique, 330, 4569, 5923
drug addiction, 4994
duplication in, 340
education and, 3566, 4077
ego in, 5478, 5935
essays, 1659
ethnology and, 2099
fairy tale, 3088
family reactions, in, 333
folk-lore and, 3099
future of, 2102
indications, 346, 3090
institute, Paris, 5338
introduction, 1085
journal, 4083
kleptomania, 2575
law and, 2579, 2580
literature and, 4190
magic theory, 5591
method, 5476
Montessori and, 1826
normative viewpoint, 325
olfaction and, 3564
outline, 1670, 3094, 4065
psychology and, 1088
psychosis, 5917
relaxation in, 321
religion and, 493, 4079, 5493
resistance, 4571
results, 3563
sex differences, 4570
social work and, 5926
Spinoza and, 2096
technique, 354, 1661
telepathy in, 4069
therapeutic mechanism, 5936
thought and, 4574
treatise, 5924
tuberculosis, 2560
of uncanny, 5912
voice in, 5914
of Wernöe, 3557
woman, 3091
(See also *Adler, Ambivalence, Anal, Castration, Complex, Dream, Ego, Ferenczi, Freud, Guilt, Identification, Inferiority, Jung, Narcissism, Oedipus, Oral, Projection, Rationalisation, Regression, Repression, Resistance, Sadism, Sex, Sublimation, Transference, Unconscious, Wish*)
Psychobiology, 17
textbook, 4847
Psychogenesis, 5074
disease, 2135, 5968
Psychologist, school, 2255
turnover, 2733
Psychology, 4859
applied, 3243
textbook, 1277
atomistic, 5745, 5746
bibliography, 3367
classification scheme, 776
comparative, 1068
textbook, 4970
contemporary French, 2403
German, 2402
crisis, 2847
developmental, 4340, 4842
doctorate, 2858
educational, 1313, 1317, 3801, 5651
courses, 1345
ethics and, 3724, 3727
experimental, data, 1421
Italy, 2389
laboratory manual, 4350
review, 4341
textbook, 4827
France, 2404
fundamental concepts, 4354
results, 2868
general, retention, 5226
genetic, textbook, 798, 1907
German, 1929, 4841
Gestalt, 2859
handbook, 14
high school, 2276
history of, 766, 2862, 3608, 4344
under Hitler, 1443
in industry, 1288, 4723, 5209, 5212
interest in, 2846
lessons, 3375
medical, 3127
students, 3607
medicine and, 365, 393
method, 755, 767, 3900, 5353
miscellanea, 2393
objectives, 5761
ontology and, 18
organic, 4832
outline, 29
philosophy of, 765

physiological, 4830
practical, 5758
psychiatry and, 1100, 1687, 3626
psychoanalysis and, 1088
publication, China, 2391
trends, 2856
qualitative, 797
radio lectures, 758
recent, critique, 4
religion and, 533
research fields, 5337
Rumania, 2869
schools, 2410, 5733
social, 4651
sociology and, 4643
status, 1414
teaching of, 2398
methods, 2285
terminology, 4833
textbook, 752, 793, 1428, 1927, 4356, 4850, 4853
Japanese, 2863
totality, 4836
treatise, 779, 2394, 2852, 3379, 4337
trends, 2855, 3897
types of, 4838
work book, 778
Psychomotor symptoms in encephalitis, 1688
Psychopath in conflict situation, 5986
Psychopathic personality, 2130, 3106, 4625
Psychopathology, 1679, 3599, 5081
child, 389
constitution in, 5987
current, 5964
intuition in, 1690
psychology in, 4586
review, 3634
Psychopathy, 5514, 5526, 5553
child, 5543
criminal, 4661
in delinquency, 4179
determinants, 3637
dream and, 5521
economics and, 1681
vs. encephalitis, diagnosis, 5944
Fieschi, 2592
heredity, 1700
legislation on, 5645
Psychophysics, 883, 2901, 2905, 3409, 3941, 5336, 5376
constant stimuli method, 641, 1939
Gestalt and, 61
single stimuli method, 53, 861
(See also *Paired*)
Psychophysiology, 1
Psychosis, 4126
age of onset, 1149
anemia, 2141
association of ideas in, 1157
atypical, 5555
audition in, 1148
body type, 1126, 2143
care of, 437, 5520
causes, 5036
certification, 5050
child, 5983
eidetic imagery, 3341
endocrines and, 2131
classification, 5513, 5524
climate and, 3584
commitment in, 5051
communicated, 413, 1141, 2615, 5562
compendium, 373
concept, 2106
constitution in, 3631
convalescent homes in, 3595
coordination in, 4324
as culture, 2600, 5507, 5532
crime and, 1108, 3586, 3642, 3713, 5108, 5976
in law, 430
depressive, women, 4608
as dissociation, 2122
divorce in, 2139, 3144
drug effects, 5929
emigration and, 3585, 3625, 5040, 5041
endocrines and, 2138
endogenous, heredity, 1697, 1705
etiology, 2110
evaluation, 1110
extrapyramidal reflexes, 422
family in, 5063
form and course, 1128
geology and, 1168
grief and, 2594
groups, 3124
habit training in, 5534
handwriting in, 407, 6034
heredity, 2128, 3430, 3533, 5039
in history, 3116
vs. hypophrenia, diagnosis, 1132
incidence, 399, 3587
increase, 3627
induced, 1122
infectious, 5557
intelligence in, 5561
introversion in, 6003
involution, 1691
labyrinth in, 419
law and, 4103
marriage and, 3632
mind-body problem and, 6
motility, 2137
muscle tonus in, 4589
music appreciation, 1708
myxedema, 429
nursing in, 372
periodic, 5501
parole in, 2626
perseveration in, 3636
personality organization in, 381
presenile, 1105
primitive mentality and, 5066
prison, 1118
probability, 5969
prophylaxis, 2144
psychic pain in, 380
psychoanalysis, 5917
puerperal, 455, 4088, 4109, 4127, 5529
race difference, 3129, 5167
reflex in, 3120
recovery from, social effects, 5508
suicide, 2114, 3131
homicide in, 1139
theory, 2571, 4106
types, 2612
veterans, 4142
test, 5684
women, 366
work therapy in, 1117
(See also *Chorea, Cyclothymia, Delusion, Dementia, Depression, Diagnosis, Encephalitis, Epilepsy, Graves' Hospital, Hygiene mental, Mania, Melancholia, Narcolepsy, Neologism, Neurosis, Paresis, Paranoia, Paraphrenia, Persecution, Psychiatry, Schizophrenia, Stupor*)
Psychotechnics, 2238, 3773, 4708, 4244, 4260, 4261, 5189
Czechoslovakia, 4226
defense, 575
Germany, 574, 2737
London Institute, 4249
mathematics in, 4697
in small industries, 1282
Stuttgart *Hochschule*, 5195
tasks, 1281
terminology, 1279
tests, 4237, 4727
validation, 4726
variability, 4722
Psychotherapy, 769, 1188, 1867, 2569, 2611, 2619, 3125, 3596, 3609, 3618, 4073, 4108, 4130, 4577, 4580, 4607, 5043, 5056, 5072, 5952
art in, 5953
behavior problems, 2836
child, 5031, 5294, 5958, 5984
congress, 4826
constitution and, 5982
German, 4104, 4111
history of, 385
Hitlerian, 4581
hospital, 2613
magic and, 5931
meeting, 5034
philosophy and, 5977
politics and, 5609
processes, 425
religion and, 5978
status, 4114
teaching, 5560
written summary, 2645
(See also *Psychiatry*)
Ptosis, 1504
functional, 4884
Puberty, 2368, 3876
Chinese, 4336
epilepsy and, 387
expression, 2362
Jew, 3873
praecox, 1861
(See also *Adolescence*)
Puerperal psychosis, 4088, 4127, 5529
(See also *Parturition*)
Pulse, music effects, 4690
Punching vs. drilling, 3750
Punishment, 3182
delay, 4057
in education, 5656
effects, 4514
facilitation effect, rat, 5464
in learning, 905, 2456, 4004, 4947, 4954
mirror training and, 168
purpose, 2658
retention and, 1993
effects, 4516
for right responses, 4460
in institution, 4281
(See also *Blame, Reproof*)
Purkinje images, 2897
phenomenon and personality, 2909
theory, 3396
Punctuation difficulty, 5217
Pupil, Argyll-Robertson, 5764
choice of teacher, 1813
reflex, chronaxy, 2475
contraction, rate, 4443
dilation from cortex stimulation, 5812
effect of various stimuli, 2962
mammal, 1057
photography, 5797
ranking methods, 3797
reaction, paradoxical, 858
reflex, brightness and, 3930
innervation, 3416
sympathetic and, 990
size and field, 5360
Purpose and behaviorism, 2865
recall of unfinished tasks and, 2997
Purposive behaviorism, critique, 4858
Pursuitmeter, 3894
Pyramidal lesion, cat, 1046
system in limb formation, 4430
tract function, 5836
Pyramids and reflexes, ape, 3512
Pyromania, 1702

Quality and intensity, figural, bee, 233
problem, 4855
Quarrel, child, 688, 2828, 5281
Question, child's, 733
sex, child, 5299
Questionnaire, attitude, reliability, 5630
Quotient slide rule, 4782

Rabbit, blood content in excitement, 4044
caloric nystagmus, 5456
ear lesion, 4357
circulation and labyrinth reflex, 5431
cortex, activity, 927
extirpations, 3518
localization, 4045, 4417
response to light, 4028
emotion and blood cell, 4397
leucocytes and, 4398
nerve stimulation, 5417
nesting instinct, 284
oestrous behavior, 3481
sex-pituitary connection, 5832
Rabies effect on conditioning, 2489
Raccoon, delayed alternation, 1051
memory, 5459
problem solving, 3022, 4488
Race attitude vs. information, 3714
knowledge and, 3670
negro child, 5588
students, 5615
biometry, 1243
blood group and, 1734
comparisons, 3200
differences, 2761, 5118, 5129, 5141, 5160, 5175
cheating, 6025
Hawaii, 613, 1773
intelligence, 5159
metabolism, 1556
perception, 1261
psychosis, 3129, 5167
reading, 3722
scholarship, 5183
doctrine, 5583
hygiene, 486
mixture, 4988
stereotypes, 3181

taste deficiency and, 5799
testing, 5128, 5158, 5172
(See also *Anthropology*)
Rachitis in child, 5319
Radiation, 1418
brain, 5421
Radicalism, teaching of, 5660
(See also *Belief*)
Radio preference, 4688
Rage, sham, 4912
Railway accidents, causes, 4243
apprentice tests, 5204
test, 2229, 2242
-ing, attention for, 2253
men, selection, 2237, 3736, 4694
Range of attention and eye preference, 4400
Ranking, 5590
pupils, 3797
test, 4789
Ranschburg phenomenon in factory, 3246
Rape, 3198, 5149
Rat, abstraction, 1066
act structure, 5454
activity and hormone, 3510
measurement, 1058
metabolism and, 1622
sound and, 1048
thyroid, 174
adrenal and oestrus, 1561
aggressiveness, 1594
alcohol and retention, 1067
brain development and behavior, 126
lesion and learning, 1987
castration and activity, 2048
choice and length of path, 5469
cortex, action current, 4433
delayed response, 5468
diet and learning, 4052
nerve system and, 2518
drive, 2426
learning and, 3482
error elimination order, 1596
extinction of discrimination, 275
feeding reaction, 4483
fetus, activity, 1015
brain injury, 5828
geotropism, 209
gonads and learning, 1609
growth and adrenal cortex, 2031
work and, 3993
habit formation, 228
in non-selective conditions, 2521
handedness, 4519
heredity of activity, 2049
thymus effects and, 4470
hunger-thirst discrimination, 1040
isolation effects, 1017
learning, 1053
activity and, 1032
barbital and, 2040
delayed reward, 2547
error elimination order, 4975
intercorrelation, 2542
limit, 4972
maze length and, 2510
metabolism and, 3498
order, 4974
sex difference, 1064
least effort, 5463
maze behavior, 4484
control, 3026
errors, 4490
factors, 4526
learning, 201, 1038, 3039, 4516
control, 3486
stimuli, 2030
retention, 1029
rotation behavior, 1065
swimming, 315
metabolism and temperature, 3490
motivation apparatus, 5331
motor cortex extirpation, 3501
mutations, 1598
neurosis in, 231
orientation, 1020
ovary transplants, 1601
problem solving, 3511
punishment in learning, 5464
reasoning, 2054
regression, 1034
retention, 2516
retina, 4053
rotation and orientation, 1024
sex behavior and hypophysectomy, 2062
sound and swimming speed, 4969
speed gradient, 4965
spinal, subordination, 1605
stereotropism, 5895
symbolism, 293
vitamin B deficiency and learning, 2512
weight discrimination, 3479
work and muscle, 2973
content, 4041
Rate change recording apparatus, 3370
Rating intelligence from photographs, 4183
methods, 5590
personality from voice, 4144
reliability, 2311
scale, 6134
group discussion, 4309
self, character, 4154, 4155
prisoner, 2643
speech and personality, 6006
teacher, by student, 3284
trait, child, 5279
(See also *Judgment*)
Ratio errors, adjustment, 2803
Rationalization, 4093
agriculture, 3747
business, 5207
folk vs. legal, 1790
industry, 2233
Reading, 2916, 3704, 3730
ability correlates, 1762
high school vs. college, 4760
parents, 5240
achievement prediction, 5671
primary, 611
aphasia, 1704
vs. arithmetic, 2792
beginning, and typewriter, 6126
braille, 5791
Chinese, 2648
comprehension, testing of, 3257
disability, 524, 930, 1216, 1862, 2794, 3691
adults, 1220
heredity and, 475
disturbances, 396
echo, 1492
eye movements, 1262, 1265, 5165
college success and, 2764
standards, 3681
facility, German type, 4189, 1286
gifted child, 5275
habits, blind, 150
eye movements and, 3213
handedness and, 4219
with both hemispheres, 1467
hygiene, 1788
intelligence test and, 654
interests, Chinese, 6013
vs. lecture, 4740
measures, photographic, 2716
mirror, 4664
negro, 3722
women, 3690
parent, 5291
perception, 3202
performance, 3214
pre-primer, vocabulary, 6099
primary grades, 2260
rate and association speed, 5643
improvement, 2702
readiness test, 4741
remedial, 598, 4764
adjustment and, 5957
student, 5654
researches in, 485, 3685
reversal in, 528, 2679, 3177
review, 3212
sentence structure and, 3179
span and tachistoscope, 2199
speed, Japanese, 3946
sex difference, 471
typed material, 3686
teaching to subnormal, 1316
test, 2703
training and comprehension, 5662
typewriter script, 3171
visual apprehension in, 496
voice, 2689
(See also *Book*, *Dyslexia*, *Legibility*, *Library*)
Reaction, chauffeur, 4227
coordination, 980
mechanism, 5858
primary vs. secondary, 2444
time, 129, 1939, 4441, 5869
altitude and, 1990
apparatus, 25, 3226, 5329
driver, 4223
drug effects, 4006
child, 3847, 5714
in glare, 1460
labyrinth stimulation and, 961
metabolism and, 989
mood and, 3142
reliability, 4934
selective, 95
stimulus intensity, 4464
training, 3245
Reactivation, repressed material, 4078
Readiness, 3017
Realism, illusion in, 2857
instinctive, 4834
Reality, 5753
in art, 5174
in delusion, 4091
ideal and, 5744
perception, 3880
perversion and, 2089
Reasoning, 97
rat, 2054
(See also *Thought*)
Recall, delayed, 4446
unfinished tasks, 2997
(See also *Learning*)
Recapitulation in psychotherapy, 2645
Recidivism, 2715, 3168
Recitation frequency, 4272
socialized, 2776
Recklessness, driving, 6074
Recognition, melody, and tone memory, 6036
object, child, 6166
retroaction and, 2940, 5406
sense experiences, 1953
speech, 5372
touch, 5354
mouth, 4390
Recollection, 2944
(See also *Memory*)
Recording, electric, 5216
methods, 5759
social behavior, 529
Recreation, neighborhood, 4653, 4663
personality and, 3136
significance, 2211
(See also *Play*)
Recreal effects, 3572
Rectilinearity, threshold of, 1476
Reflection, brightness and, 1946
Reflex, abdomen, 969
abolition, tabes, 3597
accommodation, 79
convergence, 2507
Achilles, 2480
activation of sympathetic, cat, 108
activity, 5737
arc, excitability, 5823
vesticulo-ocular, 5427
arterial, to chemicals, 5862
auditory, pigeon, 1006
Babinski, newborn, 5851
carotid, 3464
ganglion, 5860
cat embryo, 4542
cerebral factors, 1565
chained, extinction, 4476
change, heart rate, 1988
child, 1558, 2365
cockroach, 3038
conditioned, 132, 983, 4481, 5451
cortex and, 4457
free-moving animal, 4482
control, insect, 3044
cranial nerve, 5443
Cyon, 5875
dog, innervation, 3514
drug effects, frog, 2967
electromyograms, 3475
endocrine effects, 4480
excitability and Co_2, 4007
pH and, 5871
extinction, anesthesia effect, 967
extrapyramidal, in psychosis, 422
falling, arthropod, 3025
fatigue and, muscular, 2991
fetal cat, 294
flexion, 4925
flexor, and vestibular nerve, 2490
frog, 4032
galvanic, 138, 166, 1010, 2483, 3451, 3454, 3999, 4938, 5817
apparatus, 5330
arithmetic, 4021

cat, 4034
cinema response and, 3715
conditioning, 3007, 5879
disinhibition, 1005
emotion and, 890
in epilepsy, 1154
modification, 4937
in music, 2195
gastric, 4478
gastropod, 5892
grasp, 4450
frontal lesion and, 4467
lobe, 5845
humoral control, 954
interdependence, sphincters, 146
knee jerk, 136
joint, 3473
latency, 4957
temporal aspect, 973
labial, 3452
labyrinth, aviator, 970
circulation and, 5431
lingual-maxillary, 2984
latency, psychosis, 5516
masticatory-sudoral, 2995
medullary, frog, 4046
memory and, 214
Moro, infant, 3317
neonate, 678
nerve content during, 4425
patellar, 959
inhibition and, 4454
pathway, sympathetic, 5843
pharyngeal, 2043
pain and, 3415
plantar, infant, 6161
tendon, 182
postural, 1587, 4455, 5872
psychomotor, 1000
in psychosis, 3120
pupil, and brightness, 3930
chronaxy, 2475
innervation, 1552
pupillary, innervation, 3416
pyramidal tract, ape, 3512
release, cord section and, 2491
respiration as, 4442, 5861
righting, cat, 5889
Rossolimo, 2989
sensitivity, vessels, 4445
spinal, and emotion, 5873
strychnine and, 141
swallowing, 155
sympathetic, in stuttering, 4208
tendon, 986
trace, in child, 703
unisegmental, dogfish, 5900
vasodilation, 144
zones, guinea pig fetus, 3484
(See also *Knee, Nystagmus, Posture*)
Reform of prisoners, 5116
Reformatory adjustment, prediction, 6022
population, 5116
Refraction and cycloplegic, 4885
eye, 1447
image size and, 4877
variability, 4870
Refractory phase and stimulus duration, 3444
Regard, eye position and, 860
Regeneration, crab, 4512
newt, 4056
(See also *Autotomy*)
Regression, hypnotic, 1096
in neurosis, 1669
rat, 1034
Rehearsal and retention, 5447
Reindeer, behavior, 238
Rejection, maternal, 6158
Relationship, 538
Relatives, intelligence similarity, 4550
Relativity, 5345
ethics and, 5619
Relaxation, 1568
measurement, 4448
in psychoanalysis, 321
technique, 4003
Relay, 3364
Reliability, attitude questionnaire, 5630
Bernreuter scale, 4163
case history, 5627
coefficient, range correction, 4767
change measurement, 1376
estimation, 643
infant tests, 2346
judgment, 1356
maze, 2974
music tests, 477
nonsense syllable scores, 3431
observer, 5624
oral examination, 4757
Otis I.Q., 5273
personality inventory, 3139
rating, 3153
practice and, 5683
preschool tests, 1364
psychiatric observation, 5048
rating, 2311
reaction time, 4934
retest, 2809
Rorschach test, 5995
test, 1346, 4327, 4790, 6119
Relief treatment, 2202
Religion, 1232, 1248, 1417, 2181
attitude, change, 5628
belief, 1737
child, 745, 1819, 3854, 5285, 6175
certainty in, and denunciation, 6038
conformity in, 1260
deaf mute child, 6167
falsification in, 3189
fertility, 5905
growth in, 2655
individual psychology and, 4679
instinct in, 4674
maze and, 5621
mental hygiene, 505
neurosis and, 2086
objects of, Jewish, 329
philosophy and, 1215
primitive, 4079, 5180, 5185
psychiatry and, 2176
psychoanalysis and, 493, 5493
psychology and, 533, 1241,
of, 1225, 3718, 4199
psychotherapy, 3618, 5978
revival, 4209
school work and, 5720
science and, 6035
social attitudes and, 4220
student, 2667
types, 1213
(See also *Church, Oxford, Prayer, Priest, Ritual, Shamanism, Yoga*)
Reminiscence, 3432
rat, 2516
testimony, 2943
Renaissance, psychology of, 1252
Repetition, high school courses, and college success, 5247
learning, 3006
length in learning, 913
work, 4269
Report, 1756
cards, 3266, 4286
primary and attention, 88
response effect on, 2990
Reporter, selection, 3240
Repression about death, 369
memory, 2451
release, 4078
reproduction,
Reproduction, color patterns, 4919
light and, guinea pig, 4960
population density and, 5466
(See also *Fertility, Maternity, Sterility, Sterilization*)
Reproof, effect on steadiness, 143
(See also *Punishment*)
Reptile, cerebellum, 230
heart, pace setter, 278
iris, 4536
olfaction, 3041
vision, 3073
(See also *Lizard, Snake, Tortoise, Turtle*)
Research attitudes, 760
on crime, 2680
curriculum, review, 4729
education, 578, 2268, 2298, 3251, 3264, 3287, 3779, 5665
Australia, 1292
English, 3270
fields, psychology, 5337
hypophrenia, 3601, 4095
methods, 2312
on negro, 3693
in progress, education, 2267
sociology, 4637
sociology, 6032
training, 3215
Resistance, child, 677, 1379
psychoanalytic, 4571
vs. tension, muscle, 4437
Resonance theory, critique, 5810
Respiration, animal vs. infant, 265
annoyance and, 2481
ape, 4489
apparatus, 15
centers, insect, 222
change in anxiety, 1167
control, insect, 221
construction workers, 2244
emotion and, 885, 4466
excitement in hypnosis and, 355
fatigue, 1996
flight and, insect, 220
heart and, 5445
hunger and, 4444
learned types, 4458
measurement apparatus, 5747
neonate, 2364
nerve, 1982
control, 5859
as reflex, 4442, 5861
stuttering, 3721
vagus impulses and, 103
in work, 2999, 3471
(See also *Ventilation*)
Response effect on report, 2990
infant, 3316
psychophysics, 5336
spontaneous, of neonate, 1394
Responsibility and alcohol, 5117
criminal, 2579
Rest periods, fatigue, 4011
Retardation, child, 4811
emotional, 1720
high school, 3798
school, 4277
Retention and alcohol, rat, 1067
cinema material, 604, 1214
college, 2458
control, 3459
curve, 897
effect, punishment, 4516
emotion and, 895
excess maze pattern, rat, 1029
general psychology, 5226
growth, 902
increase of, 3432
after interruption, maze, 994
learning methods and, 1562
pattern, sense mode and, 896
pleasantness and, 914
punishment and, 1993
rat, 2516
cortex lesion, 4967
rehearsal, 5447
review, 4918
savings measure, 3963
(See also *Memory*)
Retest reliability, 2809
ten-year interval, 3824
Retina, action potential, 109
cat, 112
color mixture on, 2918
cortex representation, 1958
dark adaptation, 3404
fish, 2058
frog, 3027
action potential, 5831
geniculate projection, 3908
inhibition, 4362
learning, transfer, 1464, 1466
lesions, 859
periphery, color sensitivity, 1497
pigmentation, sensitivity and, 827
rat, visual purple, 4053
reptile, 3073
shark and squid, pH, 4051
stimulation and action current, 5847
summation, 5355
threshold, 844
vitamin A in, 509
Retroaction, 1527, 3960
interpolation point and, 910, 2452
learning poetry, 1975
pleasantness and, 894
in prose, 5409
recognition and, 2940, 5406
similarity and, 899, 916, 2935
temporal aspects, 907, 908, 2939
Reversal in reading, 485, 528
writing, 2679

Review, animal intelligence, 2017
attitude research, 1749
book, analysis, 5347
castration effects, 5065
character tests, 5579
Chinese, psychoanalysis, 2563
clerk tests, 5194
college success prediction, 5256
conditioned withdrawal, 2994
in children, 717
curriculum research, 4729
education, 5232
tests, 5659
elementary teaching, 590
exceptional child, 4813
psychology, 4341
humor, 3197
hypophrenia, 5955
infant study methods, 3340
intelligence tests, 5689
introversion, 4627
law of effect, 4920
learning, 5864
retention and, 4918
teaching and, 591
mental hygiene, 4593
neonate studies, 690
nerve metabolism, 943
neurosis, 418
objective tests, 3790
personality, 4161
play, 3323
psychopathology, 3634
reading, 3212
research, 3685
schizophrenia, 5076, 5077
social psychology, 4645
spelling correlates, 3298
vocation trends, 3227
volition, 2497
work, 5874
(See also *Bibliography*)
Reward, amount of, and learning, 101
delay, 4057
rat learning, 2547
effect, learning, 923
education, 5656
learning, 179, 905, 4947
Rheotaxis, planarian, 3480
Rheumatism, psychic influence, 343
Rhythm, affective characteristics, 2983
cross, 1218
different, simultaneous, 2996
diurnal, 2517, 2971
emotional, in man, 2923
graphic, child, 6150
melody and, 4686
motor, child, 3356
muscle fiber, 128
personality, 3133
pitch and, 2426
response, muscle fiber, 2460
sex, female, 3472
in skin temperature, 981
work, agriculture, 1280, 3234
Righting reflex, cat, 5889
Rigidity, decerebrate, 2010
Ritual, Jewish, 3093
Rivalry, child, 2356, 3329
Rocky Mountain Branch, meeting, 2848
Rorschach in cyclothymia, 2608
responses, 3818
in stuttering, 3659, 5095
technique, 4623
tests, 1172, 2323, 5993
brightness in, 3645
reliability, 5995
Spanish, child, 4319
Rotation effect on orientation, rat, 1024
eye movement in, 1569
maze, rat, 1065
sensation of, 42
Rumania, psychology, 2869
Rumor, 1756
(See also *Belief*)
Russia, mental hygiene, 5083
northern pupil, 3696
social incentive, 534

Sacrifice, personal, 2186
Sadism, 4568
feminine, 1651
prostitution, 515
war, 4182
(See also *Psychoanalysis, Sex*)
Sadness, 1721
Safety, highway, 2236
(See also *Accident*)
Salamander, ear transplant, 270
eye, 198
grafts, 5807
taste organ transplants, 5894
transplants, 5901
eye, 264
Salary, costs, 4258
Sales girl, test, 3239
personnel, selection, 2241
(See also *Advertising, Package*)
Salesmen, life insurance, 2217
personality, 3654
selection, 3220
Saliva collection, 971
preservation, 972
registration, free moving animal, 4462
Salivation and alcohol, 183
caffein, 361
mechanism, 998
Salmon, T. W., memorial, 1897
Sampling, 2307, 2312
from compound populations, 2300
correlation, matched groups, 648
error, social data, 5640
randomness determination, 2308
Satisfaction, nature of, 5748
student, 1383
vocational, 5199
college men, 4728
Saturation, image size and, 1962
yellow colors, 836
Scale, adolescent, personality, 4629
attitude, 3812
composition, 3285
divisions, 3757
markings, 4709, 4710
motor, child, 3345
social status, 2172
(See also *Test*)
Scaling, absolute, 2807
by similar reactions, 2636
Scatter, test, and adjustment, 5992
Schizophrenia, 367, 416, 483, 1130, 1689, 1709, 3111, 3578, 3589, 3605, 4071, 4097, 4132, 4610, 4613, 5040, 5044, 5062
abstraction in, 5497
art in, 1692
body type, 1126
character changes, 4591
child, 1155, 1164, 5973
childhood background, 4619
circulation, 5527
constitutional, 4584
copying in, 5498
crime, 4123
culture, 5523
cyclothymia, 3638
drawing in, 1163
epilepsy and, 2119
experience in, 5502
free behavior, 3630
handwriting in, 407
heredity, 306, 3534, 4549, 4592, 4605, 4989, 5067
homicide, 4597
introversion, 6003
isolation, 5522
metabolism, 5537
morphology, 3606
neurosyphilis, 2134
oxygen treatment, 5059
parent attitude, 4115
pathogenesis, 1127
poetry, 1147
prevention, 5519
projection, 2623
research, 5538
review, 5076, 5077
school success, 5572
space time, 4100
syndromes, 2104
terminal, 3115, 4117
test behavior, 1152
time, 4099
variables, 3611
women, 366
Scholar, brain, 1979
Scholarship, Alaska, 3679
age levels, 4758
athletics, 1811
blindness, 4879
church groups, 6117
college, 1349
and high school science, 6116
concomitants, negro students, 592
correlates, 4273
course load, 3786
factor analysis, 2778
football, 615
fraternity, college, 6087
members, 3272, 3273
grade knowledge, 3780
Spanish child, 5218
high school and college, 1339
intelligence, 2280, 2777, 3794, 3829, 5230, 6114
college variation, 1304
football men, 4307
Japan, 4325
perseveration, 624
status, 2808
teachers, 600
Latin training, 635
negro, 5183
child, 3671
occupational interest, 2793
personality, 1194
perseveration, 3280
politics, Germany, 4689
prediction, 2296, 3282, 4746
chemistry, 5664
freshmen, 595
music, 2710
reading, eye movements, 2764
religion and status, 5720
self-support, 2765
sex, 4311
difference, 4733
status, intelligence, 1302
subject interest, 6091
teaching experience, 4306
tests, 5249
unemployment, 2330
(See also *Accomplishment, Education*)
Scholastic aptitude test, 1362
Scholasticism, Gestalt, 2430
School, active, 639
learning, 4291
activity, programs, 5234
adaptation, dull pupils, 1823
adjustment, 4753, 3254
attitude, high school, 603
boy leaving, 4295
child guidance, 6111
citizenship, factors, 584
clinic, 583
cost and attendance, 2278
deafness survey, 1457
discipline, 4289
effects, child, 5706
elementary, 1832, 1833
examination, 605
fatigue, 3793
gifted child, 616
government by students, 606
grouping, 5228
influence on pupil, 2291
intelligence test, 4328
interests and vocation, 3796
leadership, 541
library reading, 2260
Lincoln, achievement, 6105
load, high school, 5236
marks and home, 1295
mental hygiene, 1326, 3293, 4614
music, 4744
objectives, 1933
teaching, 4762
training, 4756
nursery, 1338, 1342
principal, 1834
psychologist, 2255
readiness tests, 2265, 3784
report, 608
retardation, 4277
social work, 1347
speech comprehension, 5182
subject intercorrelation, 3303
interest, 2798, 6091
success, correlates, 2791
pre-schizoid, 5572
supervisors, qualifications, 617
survey, dependability, 620
unique, 1815
visual examination, 1957
vocational guidance, 2786
(See also *Education*)

Science, creativeness, 3734
high school, college scholarship, 6116
religion, 6035
sex difference, 2771
teaching, China, 1805
technology, 1415
Sclerosis, speech diagnosis, 1696
Scoring attitude scales, 6031
Scotland, intelligence survey, 666
Screaming of child, 726
Sculpture, paleolithic, 6033
Search, context, 5407
Seashore tests, 1258
Seasickness, eye and ear, 4012
Seat preference in classroom, 1309
Secretion, fish brain, 2050
Selection, apprentices, 3772
aviators, 548
birth rate, 1642
color workers, 2740, 6080
fireman, policeman, 3759
freshman, 2762
gifted children, 720
human, 2191
methods, 303
nurses, 2727
railway men, 3736
reporter, 3240
sales personnel, 2241, 3220
test, 2231
vocational, 2745
(See also *Homogamy, Occupation, Sex, Vocation*)
Self in association psychology, 31
consciousness and attention, 3425
discontinuity, 5742
estimates of improvement, 4944
personality, 4149
interest in ascendance scores, 660
rating, character, 4154, 4155
prisoner, 2643
sufficiency scale, 2630
test, 3134
Senility, 5156
accommodation in, 5369
cyclothymia, 5070
dementia, 4582
guidance, 5055
onset, 3665
vigor, 5429
(See also *Age*)
Sensation, 815, 4899
cerebral dominance, 943
philosophy, 3922
preface, 803
recovery after nerve section, 4419
rotation, 42
skin, 863
localization, 1498
stimulation, 804
stimulus curve, 883
taste, 2438
temperature, 1933, 3406
terms, history, 8
time, audition, 4363
relations, 3937
touch, 3390
vibration, 871
weight, 1499, 1500
(See also *Adaptation, Joint, Kinesthesis, Modality, Perception*)
Sense alteration, epilepsy, 5979
biology, mammals, 2529
compensation, blind, 1948
control, maze habit, 3486
rat, 3026
cues in discrimination, chimpanzee, 1072
data, 3940
endings, cutaneous, ion effects on, 1061
experiences, recognition, 1953
loss phenomena, 5767
mode, pattern retention, 896
organ, sagittal, 3043
tick, 4538
trilobite, 4964
nerve impulse, 3991
worm, 3067
organization in learning, 2938
physiology, 3989
planaria, 4966
qualifications, aviator, 545
qualities as effects on sensitive beings, 2396
specificity and nerve diameter, 3981
summation, 1506
transfer, fish, 4258
unity, 4395
world, 44
Sensitivity, 75
alcohol effects, 4375
barnacle, 2520
chemical, 5771
color, peripheral, 1497
single cell, 4365
cornea, 1944, 3916, 5815
cripples, 1501
deep, stimulation time, 848
differential, 2426
ear passages, 2424
electric fish, 1600
handedness 19461
kinesthetic, 2732
light, Daphnia, 257
stimulus, 2899
modifications, encephalitis, 5075
nipple, 3950
oxygen, hydra, 4487
pain, 3408
reflex, vessels, 4445
skin, 5798
basis, 2895
speed differences, 1472
syringomyelia, 1450
test, touch, 4368
vibration, 822, 2885
visual, 5426
differential, 3928
stimulus size and, 5779
warmth and cold, basis, 1494
Sensory anesthesia, 5841
Sentence, indeterminate, 2654
Sentiment, 3422
theory, 2929
(See also *Emotion, Feeling*)
Set experience, 922
mechanism of, 1012
organic, 896
Sex, 3164, 2678
activity and castration, bird, 202, 203
humidity and, 2535
anatomy, 2175
attack, after-effects, 2359
attitude, physician, 3108
attraction, insect, 4038
behavior, 1239
Drosophila, 2546
rat, and hypophysectomy, 2062
biology, spider, 266
characteristics, 6010
evolution, 4670
change, 2150
desire for, 442
in child, 1396
vs. animal, 2576
conduct, child, 1391
constitution, child, 2337, 2345
control, rabbit, 284
crime, 5170, 3198
criminal, 1238
handwriting, 5586
culture and, 5178
cycle, female, 3472
light and, starling, ferret, 195
death and, attitudes, 6050
deficiency, treatment, 164
delinquent, adjustment, 4171
delinquency, marginality, 1748
development, 3562
child, 342, 691
girl, 3550, 3558
vagina in, 338
women, 3092, 3559
difference, arithmetic, 3799
attitudes, 4153
child, 1819
conservatism, 1202
delinquency, 1791
hypophrenia, 3598
intelligence, 5691
learning, 4473
mental growth, 5967
motor learning, 988
occupational interest, 1297
psychoanalysis, 4570
rat learning, 1064
reading, 3722
speed, 471
scholarship, 4722
science, 2771
skill learning, 1571
suggestion, 3569
work, 1276
disorders, 1728
education, 1293, 2297, 3709, 5729
textbook, 6115
emotion, woman, 2922
endocrines and, cyclothymia, 1151
ethics, 2677
evolution, 4066
growth and, 2368
habit, 1744
hostility, 4030
impotence, 1250, 4087, 6026
incendiarism and 5641
judgment of, 362
life, 2213
Greece, 4667
negro, 1743
woman, 3098
opium addict, 4072
maternity and, 2566
menstruation and, monkey, 3020
murder, 4677, 5162
neurasthenia, 3123
ovary and, rat, 1601
pathology, determinants, 357
review, 5065
perversion, 480, 3199, 5035, 5057
pituitary and, nerve connection, 5832
potency, disturbances, 2093
problems, Sweden, 4636
in psychopathy, 3637
questions, child, 5299
scholarship and, 4311
theory of, 3095, 5006, 5644
thwarting and, chimpanzee, 2541
(See also *Auto-erotism, Bisexuality, Courtship, Eroticism, Exhibitionism, Female, Fertility, Fetishism, Frigidity, Genital, Gonads, Homogamy, Homosexuality, Illegitimacy, Impotence, Incest, Intersexuality, Love, Masturbation, Menstruation, Oestrus, Ovary, Parturition, Pedophilia, Penis, Perversion, Phallic, Potency, Pregnancy, Prostitution, Psychoanalysis, Rape, Sadism, Selection, Vagina, Vaginismus*)
Shamanism, 1787
(See also *Religion*)
Shame and morality, 2201
Shark, cord section, 3517
iris, 4535
nerve supply, 3516
retina, pH, 4051
Shell, reaction, crab, 4501
Sherrington, C. S., work of, 974
phenomenon, 4447
Shock depressor, 165
menstruation and, 3003
habituation, 5877
stimuli, *Dixippus*, 4496
Shovel, efficiency, 551
Shrimp, light reactions, 2016
Siblings, age vs. intelligence differences, 3531
fantasy and game, 684
intelligence similarity, 4550
mechanical aptitude, 1078
position, delinquency and, 2707
resemblance, attitude, 1187
intelligence, 3532
stuttering, 5607
(See also *Triplets, Twins*)
Signal, drum, Bantu, 4647
Significance of differences, 4771
Sign-gestalt and Gestalt, 790
Silent period, cause, 4413
Silkworm moth, flight, 262
Similarity and retroaction, 916, 2935
Simplicity, principle of, 1477
Simulation, 2116, 3668
allergy, 4102
catatonia, 1680
ocular, 1452
(See also *Malingering*)
Sinanthropus, brain cast, 1640
Singing, child, pitch in, 2829
Sinistrality in handwriting, 2663
(See also *Handedness*)
Siphonophore, statocyst, 3061
Size constancy, 834, 856, 1451
vision, 3938
discrimination, fish, 4525
monkey, 239
mouse, 4527
hypophrenia, 1101

image, and saturation, 1962
phenomenal, 872
temperature and, copepods, 4035
Sketching, visual figures, 1523
(See also *Drawing*)
Skill acquisition, age and sex, 1571
analysis, 4232
confidence and, child, 2826
mammal, 2502, 5853
(See also *Habit, Learning, Practice*)
Skin, conduction, 3463
electrolytes and, 1010
injury and reversible inexcitability, 115
localization, frog, 3037
pressure and localization, 2881, 2914
vs. pain localization, 1969
reflex, frog, 4032
resistance and personality, 4148
sensation, 863
localization, 1498
prepuce, 803
stimulation, 804
adaptation, frog, 64
sense, 5798
organs, fish, 2522
thresholds, electric effect, 873
sensitivity, basis, 2895
magnesium and, 2415
neurological basis, 1494
sensory endings, ion effects on, 1061
temperature, after hemisphere ablation, 5848
rhythms, 981
stimulation and, 1949
(See also *Pain, Touch*)
Slander, attitudes, 2216, 3219
Slang, Italian, origin, 530
Slave attitudes, 5638
Sleep, 1084, 2103
agglomeration theory, 2076
in arteriosclerosis, 1153
calcium and, 2094
center, 2949, 2958, 3573
child, 1879, 3339
drug effects, 1094
hypophysis and, 363
hysterical, 1089
injected substances and, 5927
loss, effects, 2564
metabolism and, 4076
motility, child, 4812
periodic, 1091
play, appetite, child, 737
posture, catatonia, 5517
-producing substances, brain, 345
quality, 2574
calcium and, 1663
theory, 2571, 5006
waking from, 350
(See also *Hypnagogic, Waking*)
Slide rule, quotient, 4782
statistical, 4768, 5673
Slip, communicated, 5937
Sloth, temperature regulation, 217
Smell, insect, 4050
(See also *Olfaction*)
Smoking and metabolism, woman, 4998
Snail, fusion frequency, 4360
heart beat, 1638
learning, 218
nerve conduction, 4505
Snake, eye, 1631
heart, vagus action, 193
nerve system division, 3070
Sociability test, 1259
child, 698
Social activity, child, 2369
adequacy, measurement, 504
adjustment, child, 3322
diagnosis, 6005
hypophrenia, 4135, 5946
approval, child, 3359
aspects, personality, 5575
attitude, change, 4206
cinema and, child, 714
graduate women, 466
high school, 636
religion and, 4220
sibling resemblance, 1187
background, child, 4668
behavior, 4691
animals, 2540
child, 3353
disturbances, child, 2381
emotion and, 3952
isolation and, chick, 1054
rat, 1017
recording, 529
biology, 1755
conflict, mental hygiene and, 1711
conformity, 6007
contact, child, 2367
crisis and personality, 537
development, child, 691
youth, 6151
differences, intelligence test, 4323
disorganization, 3680
distance, 3162, 3716, 6059
Shakespeare, 1742
test, 5603
effects, institutional, 2160
environment, child delinquents, 1745
facilitation, maze learning, 2699
monkey, 1036
factors in work, 4267
feeling and neurosis, 4131
grouping, 1240
ants, 216
causes, 2660
incentive, Russia, 534
insight, adolescence, 2334
knowledge test, 2210
life and language barrier, child, 3326
medicine, 5079
organization, life, 523
participation, delinquency and, 1735
personality, 4622
phenomena, animals, 1615, 6047
position, backward child, 5721
psychiatry, 2687
psychology, 3678, 4651
effect on social values, 5652
review, 4645
textbook, 3706, 5137
relations and adjustment, child, 5573
child, 6160
twins, 4984
research, 3215
science examinations, 4290
methods, 3708
teaching, 614
test, 633, 634
sense, origin, 1714
significance, neurosis, 4090
situation, judgment test, 514
status and fertility, 3544
health, intelligence and, 4791
moral development and, 3848
reproduction and, 3543
scale, 2172
stratification, 3157
structure, 5620
study, child, 1592
work in hypophrenia, 1112, 1113
problems, 6049
school, 1347
psychoanalysis and, 5926
theses, 2105
training, 5970, 6056
(See also *Crowd, Group, Isolation*)
Society, animal, 5904
attitude of, 2215
education and, 4279
personality and, 1195
primitive, 1246
Sociography, 538
Sociology, attitude after course, 625
dissertations in progress, 4637
educational, 4738
ethics and, 510, 535
individual psychology and, 2165
measurement, 4659
objective method in, 1235
personality in, 5574
psychology and, 4643
research, 6032
rural, 526
statistics in, 1752
Soldier, 2247
Song, bird, recording, 3896
weather and, 1014
child, rhythm in, 4330
folk, of south, 491
heredity, cricket, 3033
lark, 1052
Sound, 82
absorption, 1484
activity and, rat, 1048
audition and, guinea pig, 1039
handbook, 5795
localization of, 2441
music, child, 1872
production, minnow, 3028
recorder, 4353
stimulation effects, 864
swimming speed and, rat, 4969
touch interpretation, 1221
tracks in diagnosis, 1781
(See also *Audition*)
Southern Society, meeting, 772, 5343
Space construction, 1437
differences, estimate, 3395, 3400
error, 2894
judgment and kinesthesis, 5370
location, 3926
mean vs. average in, 1964
orientation, in flying, 2419
perception, 1485, 2875, 5389
child, 3871
with glasses, 875
kinesthetic, 5356
motion and, 2439
quality, tone, 1963
representations, blind, 3394
thinking, disorder, 1699
time and, 5345
schizophrenia, 4100
Span, digit, 6139
Spanish achievement, Canal Zone, 1336
Canal Zone, 2287
child, grades vs. scholarship, 5218
Spearman test, factor analysis, 1377
Special abilities, education of, 5702
classes, effect upon IQ, 5967
efficiency, 405
determination, law of, 4338
education, 1140, 1143, 1299, 1330, 6125
Specificity of behavior, 3320
facial expression, 5435
infant behavior, 3872
Spectacles, lenaless, 5743
Spectrum, glow worm, 269
Speech, 1257, 1770, 3669
air currents in, 1779
centers, 391
child, 5282
comprehension, school, 5182
of deaf, 4660
defect, bibliography, 5124
child, 5622
treatment, 2095
problem boys, 5314
(See also *Stammering, Stuttering*)
diagnosis, sclerosis, 1696
difficulty, measurement, 5612
disorder, 1230, 2209
disturbances, child, 2838
education, stuttering, 4687
errors, preschool child, 732
future of, 2698
intelligence and, 5697
motor, deaf mutes, 5618
movements, 4210
perception, 2891
personality and, 4631
ratings, 6006
pitch, intensity, 4211
reception, tactual, audition and, 818
recognition, 5372
records in diagnosis, 1781
situation and, child, 5288
sounds, American English, 4215
therapy, deafness during, 4882
training, 5157, 6048
deaf mute, 4873
X-rays of, 4658
age and, 5687
(See also *Language, Phonetics, Vocabulary, Voice, Vowel*)
Speed differences, sensitivity, 1472
gradient, rat, 4965
intelligence and, 2818, 4320, 5272
intercorrelation, 4451
personal, neutral, 1473
reading, 2703
Japanese, 3946
swimming and sound, rat, 4969
training, 3009
variation and, work, 4705
writing, 5176
Spelling correlates, review, 3298
deaf mutes, 3405
disability, 3276, 3774
methods, 6097
teaching of, 601, 2750

tests, validity, 5670
vocabulary, 5258
Spending phobia, 4170
Sphincter interdependence, 146
Spider behavior, 213
egg sac behavior, 1618
instinct, 282
prey capture, 267, 4518
sedentary, 289
sex biology, 266
vision, 236
web behavior, 4981
construction, 3060
Spinoza, psychoanalysis and, 2096
Spirit, 1902
elemental, 5024
Squid, behavior, 4506
Squirrel, problem solving, 3022
Stammering, 5622
diet and, 6019
psychotherapy, 5504
(See also *Speech defect, Stuttering*)
Standard deviation, error of, 1355
Startle in driving, 3741
heart cycle and, 5444
reaction, 3461
Starling, light and sex cycle, 195
Statistics, 1809, 5681
applications, 1843
biology and, 1839
critique, 1841
errors, 3810
graphic, 1838
limitations, 4775
mathematics for, 3816
difficulties in, 587
methods, 1351
maximum likelihood method, 5675
in personality study, 2639
in psychotechnics, 4697
in psychology, 3814
slide rule, 4768, 5673
in sociology, 1752
textbook, 647, 649, 2305
(See also *Average, Chi-square, Correlation, Curve, Difference, Error, Factor, Fitting, Frequency, Graph, Matching, Mean, Normal, Pairing, Pearson, Probability, Ratio, Reliability, Sampling, Scoring, Significance, Slide-rule, Spearman, Standard, Sum, Table, Tetrad, Validity, Variability, Variance, Variation*)
Statocyst, siphonophore, 3061
Status, health, intelligence and, 3864
intelligence and, 2185
Chuvash, 3712
scholarship, 1302, 2808
reading ability, 1762
scale, 2172
school work and, 5720
Steadiness, factors affecting, 143
Stenographer, test, 3241
Stepmother-child relations, 2361
Stereoscopy, 783, 849, 2407, 4848
test, 1508
vergence calculation, 5801
Stereotropism, rat, 5895
Stereotype, race, 3181
Sterility and homogamy, 314
in women, 5961
Sterilization, 2552, 4552, 4558, 4604, 4986, 5039
crime and, 2550, 2198
defectives, 5975
Germany, 3086
hypophrenia, 2109
voluntary, 4555
Stimulus, adjacent, effects, 4868
conditioning, vs symbol, 153
duration and refractory phase, 3444
intensity and reaction, infant, 1889
time, 4464
sensation curve, 883
size and visual sensitivity, 5779
subliminal, 817
Stimulation time and deep sensitivity, 848
varied, 75
Stomach inhibition from carbohydrate, 4468
reflexes, 4478
response, monkey, 3508
Store, college men in, 2734
Strabismus, 3909, 4393, 5365
causes, 5391
optic angle and, 4860
training in, 5786
Straightness, touch perception, 5395
Strangeness, feeling of, 4084
Strength and age, 4024
muscular, 2998
position and, 3470
Strictness, child training, 3879
Stridulation, ant, 2047
insect, 190
Stroboscopy, 1491
mirror vibration, 5399
(See also *Phi*)
Strobophotography, bird song, 3896
Strychnine action, 938
effects on conditioning, 185
reflex and, 141
Student adjustment, 3561
problems, 447
anger, 888
annoyers and satisfiers, 1383
anthropometry, 582
art ability correlates, 6018
attitudes, 6011
toward child, 2375
Chinese, interests, 2720
choice problem, 5411
commercial, tests, 5668
counseling, 3299
long-time effect, 599
Czech, intelligence, 3204
interests, 4750
depression effects, 4765
disabled, vocational guidance, 4763
evolution belief, 4735
familiarity with musicians, 4736
government, 606
grade prediction, 1306
honor, personality, 5090
intelligence and attitude, 1296
interest, major subjects, 4759
mortality, 2785
opinion, Chinese, 2774
Japan, 2681
teacher, 4284
orientation, 4292
periodical reading, 5658
personnel, 1340, 3235
work, 5667
preference, courses, 6128
problems, 3286
race attitudes, 5615
rating of teacher, 3284
religion, 2667
remedial reading, 5654
scholarship and grades, 3780
superior, 5222
test of values, 1178
value distribution, 5576
vocational guidance, 3281, 3289
young, 5233, 5246
(See also *College, Education*)
Study in college, 2289
habits, inventory, 4308
training, 5654
method and test type, 2292
Stupor in melancholia, 5981
Stuttering, 1263, 3721, 5142, 5595, 5606, 5608, 5622, 6017
attitudes, 5617
child, 4652, 4675
constitution and, 3729
fatigue and, 5112
handwriting in, 5637
mental fatigue and, 1204
motility in, 5631
motor ability in, 536
personality, 3659, 5095
siblings and, 5607
sympathetic, in stuttering, 4208
treatment, 2168, 4687
(See also *Speech defect, Stammering*)
Subcostal angle, measurement, 2853
Subject attitude, personality testing, 5105
Subjectivism, 2871
Subjectivity, definition and test, 2417
Sublimation, 1576
Subordination, nerve control, 1605
Substantialism in psychology, 5757
Substitution acts, 1576
stimulus, 5449
Subtraction teaching, 3300
Success, teaching, 1827
achievement and, 5413
employer and, 6064
engineering students, 619
memory and, 2451
prediction, 4797
college, 2785, 5253, 5254, 5255, 6095
review, 5256
dentists, 572
nurse, 567
precepts, 3754
scholarship and, teacher, 600
school, correlates, 2791
pre-schizoid, 5572
(See also *Failure*)
Sucking habit, 3358
response, 956
time, concomitants, dog, 4968
Sugar inversion, bee, 2034
Suggestibility, 5593
vagotonia and, 1090
Suggestion, 339, 353, 2584, 3553
critique, 1083
drug effects and, 4435
effect, child, 3569
on opinion, 4193
true-false test, 4298
industry, 3768
neuroticism and, 1097
in optometry, 826
susceptibility to, and delinquency, 2650
technique, 331
test, boys, 3568
treatment, enuresis, 5726
true-false test, 5696
(See also *Hypophrenia*)
Suicide, 404, 1733, 1741, 2161, 2174, 2665, 3697, 4657, 5611
attempts, 3695
autobiography, 3666
child, 727
male, 531
motive, 348
nonpathological, 2653
primitive, 5184
in psychosis, 1139, 2114, 3131
sun spots and, 3112
tendency, 1766
Sulcus lunaris, incidence, 4926
Sum of variables, frequency, 1350
Summation, autonomic, 951
binocular, 5770
retinal, 5355
sensory, 1506
Sunlight and depression, 4598
spots and crime, 3112
Superiority striving, 1714
Superstition, 1789, 2169, 2671
maladjustment and, 3702
maternity, Jews, 5107
(See also *Magic*)
Supervision, efficiency, 602
in schools, 617
teacher, 6110
of teaching, 1323
mine, test, 3237
test, 1801
Support in college and success, 2765
Surgery, addiction to, 5016
Survey courses, student attitude, 6128
school dependability, 620
Surveyor test, 549
Survival, 5012
evidence, 5913
refutation, 5001
Swallowing, epiglottis in, 3447, 4932
reflex, 155, 2043
Swimming movements, mollusk, 4515
speed and sound, rat, 4969
Swinburne, A. C., personality, 2147
Swindling, neurosis and, 1776
Switch, silent, 1926
-man test, 4245
Sycophancy, genesis, 2084
Symbiosis, crab-anemone, 3029
Symbol and learning, 359
neurotic, 2614
vs. stimulus, conditioning, 153
trend from 2182
Symbolism, 503, 5027
animal, 4070
blood pressure, 1672
body, 5928
cat, 3554
chimpanzee, 3525
music, 3160
mystical, 479
phallic, 1658
rat, 293
Sympathectomy, effect on tonus, 4955

Sympathetic action potential, frog, 127
afferent functions, 5425
system, 4411
contraction strength, muscle, 110
ether effects, 107
functions, 1980
ganglion, chemical transmitter, 1984
hypoglycemia and, 1570
muscle activity and, 1542
nerve supply, fish heart, 932
pupil reaction and, 990
reflex activation, in cat, 108
pathway, 5843
in stuttering, 4208
production, 4952
Sympathy, child, 1379
Synapse phenomena, 5830
Synesthesia, 4383, 4896
conditioning, 4371
Syphilis and intelligence, 5707
neural, schizophrenia and, 2134
Syringomyelia, pain and heat in, 1450

Tabes, optic nerve treatment, 5782
reflex abolition in, 3597
Table, partial correlation, 4774
Tachistoscope, 761
reading span and, 2199
Talking, child, 2367
(See *Speech*)
Tall area in cortex, monkey, 117
Talbot law, 5765
Tambour amplification, 5750
Tau effect apparatus, 5334
Taste, 2907, 3905, 5771
adaptation, 828, 5634
center, 3441
chemistry and, 52, 3935
deficiency, heredity, 1649
race and, 5799
differences, 2438
equations, dilution and, 879
food value and, bee, 290
frog, 274
organ transplants, salamander, 5894
salts, 829
temperature, 2908
thresholds, 3921
(See also *Gustation*)
Tattooing, 6043, 6044
Teacher and adolescent, 2284
attitudes, 4285
on behavior, 4730
child adjustment, 4294
behavior, 2837
child and, 5245
Chinese, 2769
college, appointment, 630
psychiatry and, 4302
supply-demand, 3804
work, 5219
education in mental hygiene, 583
intelligence and scholarship, 600
mental health, 3265
hygiene, 631, 2283
personality and child adjustment, 3275
quality desired, 1813
student opinion, 4284
rating, 3284
supervision, 602, 6110
test training, 2770
training, 1334, 3255, 5242
effectiveness, 5653
music, 4756
visiting, 1347, 6129
Teaching ability, measurement, 6121
arithmetic, 589, 3258, 3300, 4271
articulation, use of films, 4658
attitudes, 5652, 6106
character, 1803
composition, 1820
conservatism, 5660
courtesy, 2190
discussion in, 5227
drawing, 1328, 1822
elementary, review, 590
English, 5297
excellence, uniformity, 622
experience and university success, 4306
fields, psychology, 5337
incidental, in character education, 2273
interest use in, 2257
internationalism, 2261
judgment test, 3800
leadership, 2177
of learning curve, 2294
measurement, 5229
mental hygiene, 597
method, 1817, 6101
college, 4740
psychology, 2285
review, 591
organization in, 2238
physiology, 3173
piano, 2170
practice, and professional training, 3263
primary, 2775
psychiatry, 5960
reading to subnormals, 1316
school music, 4762
social science, 614
spelling, 601, 6097
success, factors, 1827
prediction, 2266, 4746
supervision, 1323
unit, 4310
writing, 3730
Technical ability and intelligence, girls, 3846
training, 3751
Technology, science and, 1415
Tegmentum stimulation, 4369
Telekinesis, 5028
Telepathy, 4576, 5017, 5021, 5480
crime and, 5007
in psychoanalysis, 4069
Telephone operator, selection, 3242
Teletactor, 5784
Temper tantrums, child, 2838
Temperament, 1719, 3155
behavior disorder, 1727
blood pressure and, 3957
constitution, genius, 4633
heredity of, 309
mouse, 1076
inventory, 1185
test, 3652, 3660, 5990
vocation and, 2743
(See also *Character, Personality*)
Temperature, activity and, mouse, 2055
change after heat stimulation, 1486
ciliary movement and, 162
color, 835
control, forebrain, 5428
hypothalamus and, cat, 5416
effects, mosquito, 3046
efficiency and, 4246
gestation time and, 4461
hibernation and, 196
infant, 5704
joint sense and, 1458
metabolism and, rat, 3490
nerve-muscle action and, 2954
in physiology, 1580
regulation, mouse, 2044
sloth, 217
sensations, 3406
sense, 58, 59, 1450, 1933, 5798
basis, 1494
fatigue of, 49
stimulation, 804
size and, copepods, 4035
skin, after hemisphere ablation, 5848
stimulation and, 1949
taste and, 2908
time judgment and, 4366
work and humidity, 1586
(See also *Heat, Warmth*)
Tempo absolute, 5605
(See also *Rhythm*)
Tendon crossing, 4010
Tendency, 3017
Tension and mental efficiency, 5883
vs. resistance, muscle, 4437
sense, difference limen, 77
Term paper vs. test, 2781
Terminology, psychological, 4833
psychotechnics, 1279
Termite queen, 252
Test, ability, 6120
absolute scaling, 2807
art ability, 1227
achievement, 1332, 1809
vs. intelligence, 3306
acuity, standard, 3929
African, 4200
algebra, arrangement, 3776
Alpha, revised, 1844
American Council, norms, 4326
analogy, 1375
analysis by Spearman method, 4318
anxiety, 4725
apparatus, 1272
apprentice, railroads, 5204
aptitude, in industry, 576
law, 5210
validation, 3230, 3232
in army, 544
art, critique, 2694
attention, 95, 4404, 4405
attitude, item form, 1760
toward high school, 623
automobile driving, 6068, 6070
behavior in schizophrenia, 1152
Beta, revised, 5686
bilingualism and, 2754
Binet-Bobertag, 1847
German, 2317
reliability, 5166
biology attitude, 6098
brakeman, 4699
card sorting, 4465
change in answers, 2444
scores, 1376
character, 1171
child psychiatry, 5536
review, 5579
chauffeurs, 4228, 4713
clerk, 1284, 4230, 5187
review, 5194
color, aviator, 809
vision, 4384
collection, Italy, 658
college, 1369
entrance, negro, 6093
comparable, and reliability, 643
comprehensive, 1315
construction, 1337, 1836, 5669
Chinese, 1318
coordination, 4324
correction, 5271
of criminal, 508
Czech students, 4750
Dearborn, 1359
definitions, 1374
depth perception, 3413
deterioration, 434
developmental age, 4803
digit span, 6139
Downey, reliability, 1175
drawing, in hypophrenia, 1120
dressmaker, 4264
driver, 5188
education and, 1831
China, 6089
psychology, 5663
review, 5659
emotion, 5817, 5819
stability, 2647
English, 3274
composition, 2795
factor theory, 3311
first grade, 665
form, achievement, 2780
board, 731
freshman week, 2288
growth process and, 4734
vs. handwriting in personality study, 1726
hospital personnel, 2591
hotel worker, 3224
in industry, 4253
infant, 740
information, child, 6184
ink-blot, 5993
intelligence, 661, 1846, 1850, 2318, 2325, 2813, 2814, 2815, 3310, 3820, 3822, 3828, 4785, 5266, 6137
Africa, 4201, 4202
Australia, 4798
Binet, 1365, 4799
blind, 4792
comparison, 2834, 6140
child, 4796
early, 4784
equating, 3827
gain in, 2810
in hypophrenia, 384
of imbeciles, 388
infant, 1845
language in, 4317
handicap, 2816
practice, 3429
preschool, 1364
review, 5689
Russia, 3823
scholarship and, 3829

in school, 4328
short, 4321
social differences, 4323
Spearman, 3825
intoxication, 5921
introversion, 2636, 4164
vs. neuroticism, 3135
validity, 4150
imagery, 1973
item analysis, 4314
validation, 5682
validity, 4772
judgment, teaching, 3800
Knox cube, 2315
language aptitude, 2790
laterality, 3474, 5453
linguistic, adequacy, 5270
malingering, vision, 4864
matching, 2805
memory for position, 3970
variability, 4786
mental, 2314, 4788
group factors, 1371
Merrill-Palmer, 4793
methods, 2313
defense, 546
mine supervisor, 3237
mirror reaction, 4523
mixed numbers, 4787
modiste, 2249
moral judgment, 2825
morality, 6039
motor, child, 5280
training effects, 180
multiple choice, 626
muscle sense, 1496
music, 3674
achievement, 1268
reliability, validity, 477
talent, 1226
neuroticism, 4167
validity, 6000
new type, scoring, 4737
vs. term paper, 2781
nurses, 401, 567
objective, review, 3790
observation, 100
occupational selection, 5647
O'Connor, 1800
order, score and, 2756
organization ability, 628
performance and distraction, 3819
vocation interest and, 1363
perseveration, 5433
persistence, 448
personal values, 463
personality, 1183, 1197, 5580, 6005
status of, 461
subject's attitude, 5105
validity, 5092
improvement, 5099
postal service, 562
preparation for various types, 3259
prison, 4639
problem behavior, 2641
prognosis, educational psychology, 5251
prognosis from, 681
prognostic, algebra, 3252
programs, 627
child guidance clinics, 5268
psychological, 1366
in psychiatry, 415
psychosis, 1110, 5684
psychophysiological, aviators, 1271
psychotechnical, 4237, 4727
validation, 4726
purity, 3312
railway, 2229, 2242
men, 4694
workers, 2237
ranking, 4789
reading readiness, 4741
rearrangement, 5692
reliability, 1346, 4327, 4790, 6119
infants, 2346
results, treatment, 4797
retarded child, 378
Rorschach, 1172, 2323, 3818
Spanish child, 4319
rural vs. urban, 659
salesmen, 3220
sales girl, 3239
personnel, 2241
scholarship, 5249
scholastic aptitude, 1362
school readiness, 2265, 3784
Spain, 2760
score and culture, 5144
representation, 3248
Scotch intelligence, 666
selection, 2231
self-sufficiency, 3134
sociability, 1259
social distance, 5603
knowledge, 2210
science, 633, 634
situation judgment, 514
Spearman, factor analysis, 1377
spelling, 5670
stenographer, 3241
stereoscopy, 1508
superior adult, 4795
supervisor, 1801
surveyor, 549
switchmen, 4245
technical aptitude, 1849
telephone operator, 3242
temperament, 3652, 3660, 5990
thought, 2320, 2784
habits, 4794
time, 1258
touch sensitivity, 4368
trade, 4233
training, teachers, 2770
trends, college, 1361
true-false, suggestion in, 4298, 5696
twins, 319
types, comparison, 3296
study method and, 2292
validation, 3805, 5269, 2802, 5693, 6118
composition, 3278
values, 3138
of values, freshman, 1178
variability, psychotechnics, 4722
Vermeylen, 6136
color vision, 71
visual acuity, 4871
child, 2433
in school, 1957
vocabulary, 2783, 3271
vocation, 6176
guidance, 1798, 3223
interest, 2248, 3247
validity, 4692
welder, 564
will, 4440
Witmer, 2319
word meaning, 2271
workbook, 5690
writing habits, 2290
(See also *Examination, Formboard, Scale*)
Testimony, 1756, 2194, 3426
accident, 3972
affect in, 5820
child, 1229
deaf mutes, 4367
forgetting in, 2943
imprisonment and, 2649
in law, 2207
personality and, 452
(See also *Evidence*)
Tetany, 3604
psychosis with, 5496
in spinal frog, 953
Tetrad distribution, 644
Textbook, abnormal psychology, 2118
adolescence, 2338
applied psychology, 1277
child care, 6168
psychology, 706, 1404, 6170
Chinese, 3852
comparative psychology, 4054, 4970
educational psychology, 585, 1313, 1806, 2272, 5657, 5661, 5672, 6092, 6113
workbook, 612
ethics, 1211
eugenics, 4992
experimental psychology, 4827, 5751
manual, 4350
genetic psychology, 798, 1907, 4340
history of psychology, 4344
mental hygiene, 2155
neurology, 3980
neuropathology, 431, 1124
ophthalmology, 48
physiological psychology, 3886
psychiatry, 2133
psychology, 752, 793, 1428, 1927, 4356, 4850, 4853
Japanese, 2863
workbook, 778
sex education, 6115
social psychology, 3706, 5137
statistics, 649, 647, 2305
test workbook, 5690
Theft, child, 3689
girls, 6153
neurosis, 4081
(See also *Kleptomania*)
Thesis abstracts, psychology, 4857
Thief, auto, psychopathology, 1782
Third degree, severity, 1740
Thirst, 5852
-hunger discrimination, rat, 1040
Thomsen disease, 1676
Thorndike, E. L., appreciation, 1905, 2874
Gestalt and, 4829
Thought, 97, 2946
ability, practice effect, 3965
child, 3867
conceptual, 102
in dog, 5458
education, 90
habits, test, 4794
image and, 1524, 3966, 5408
impairment, study methods, 4595
in physics, 91
primitive, 4669, 4671
psychoanalysis and, 4574
in schizophrenia, 4100
test, 2320, 2784
(See also *Reasoning*)
Threat in animal fight, 235
Threshold and adaptation, monocular, 5770
auditory, chimpanzee, 4493
brightness, 840, 1930
conditioning below, 962
cutaneous, electric effect on, 873
differential, brightness, 869
kinesthesis, 5796
of tension sense, 77
flicker, child, 4878
fusion frequency, 4360
light, 5738, 5805
nerve, 1550, 5842
muscle, 1546
optic, 844
rectilinearity, 1476
taste, 3921
tonal, determination, 5813
vertical movement, 2887
visual variability, 2919
(See also *Limen*)
Throwing, 1585
Thumb sucking, 2838, 3358
hypothesis, 4968
Thwarting and sex, chimpanzee, 2541
Thymus effects and heredity, rat, 4470
Thyone, geotropism, 3066
Thyroid and activity, rat, 174
conditioning and, dog, 4449
deficiency, child, 6143
conditioning and, 2482
function, dog, 1639
hypophrenia, 5963
maternal instinct and, 963
Thyrotoxicosis, emotion and, 1515
Tic, eye, 2910
Tick, sensitivity, 4538
Tickle, nerve excitation and, 868
Time, 5378
budget, Russian child, 4739
Chinese handwriting, 1757
color associations and, bee, 3505
concept, child, 6148
in conditioning, 4943
coordination, voluntary movement, 149
determination, indifference interval, 3421
device, 26
error, 2894, 3412
estimation, 4373, 5366
excellence scores and, 5191
judgments, 4370
control, 2890
temperature and, 4366
keeper, training, 3765
measurement, 3363
memory, bee, 291, 4539
parallax, 4372
perception, 801, 2414, 3417
type and, 4388
relations in conditioning, 3015

representations, blind, 3394
sampling techniques, 4821
in schizophrenia, 4099
sense, child, 2501
disorder, 4138
disturbance, 4139
need and, 866
space and, 5345
studies, automobile, 563
study symbols, 5203
subjective, 4360
touch perception and, 2902
wastage, 2723
vs. work limit, learning, 4933
scores, 5677
Timing apparatus, 1921, 2401
Tobacco effects, 4564
Tolerance, drugs, 3105
Tone, 3682
attributes, 5397
-color association, 4383
density, 4901
discrimination, bird, 4540
fusion, 1960
high, perception, 4389
integrator, 774
intensity judgment, 5359
mass, pitch, 5358
memory and melody recognition, 6036
quality and phase, 3392
spatial, 1963
threshold determination, 5813
volume, 1970, 5396
(See also *Music, Noise*)
Tongue position, vowel, 2686
Tonoscope, mirror, 5340
Tonsils and IQ, 3309
Tonus, 2987
C.N.S. lesions and, 157
digestive excitations in, 1537
graph of, 4474
laughter and, 4013
lesion and, dog, 139
measurement, 4448
muscle, 1568, 2963, 3992
nerve centers, 5827
in psychotics, 4589
reflex and, frog, 4032
striated muscle, 2009
sympathectomy and, 4955
variation, tortoise heart, 271
(See also *Muscle*)
Tooth care, education, 5257
pain, 5367
Tool grasping, 4224
nerves, chronaxy, 3983
using, chimpanzee, 3503
infant, 6164
Tortoise, form discrimination, 1607
heart, tonus variation, 271
Totality psychology, 4831, 4836
Totemism, 2085, 4174
Touch, alcohol effects, 4375
Cyclopean point, 5384
discrimination, generalization, 5361
disturbance, 819
effect on illusions, 807
elements, nerve, 2530, 2531
endings in skin injury, 115
estimation, 5390
of distance, 2886
hearing, 5784
interpretation of sound, 1221
kinesthesis and, 43, 4890
localization, 2914
contralateral transfer, 1470
errors, 1468
training, 1469
spread, 1471
measurements, 5368
with joint, 5387
pain and, 1959
perception, 3400, 3926, 4866
movement in, 3943
straight line, 5395
time and, 2902
translocated tissue, 5392
reception, audition and, 818
recognition, 5354
brain lesion and, 1510
mouth, 4390
vision and audition in, 802
sensation, 3390, 3395
sensitivity, auditory passages, 2424
tests, 4368
to vibration, 822
in speech recognition, 5372
theory, 76
in time perception, 3920
vs. vision illusions, 4385
(See also *Skin*)
Toy, 1807, 1859
Trace inhibition, child, 744
Trade marks, 3763
predictive tests, 4233
Tradition, child play and, 1400
Traffic problems, 3755
signals, 1273
Tragedy and depth psychology, 6037
Greek, 5626
Training, dog, 2057
in hypophrenia, 3633
Latin, and scholarship, 635
moral behavior and, child, 3325
motor tests and, 180
music, 1258
reaction time, 3245
for speed, 3009
spread, touch localization, 1471
technical, 3751
time keepers, 3765
touch localization, 1469
transfer of, 2493
vocational, and intelligence, 6102
(See also *Habit, Learning, Skill*)
Trait, personality, 1196, 5577
ratings, child, 5279
Trance personality, 5915
(See also *Mediumship, Occultism*)
Transfer of conditioning, 1001
cross, 140
discrimination, 1033
essentials, 911
intersensory, fish, 4528
learning and, 909, 3424
age of associations and, 893, 1991
interocular, 1464
retinal learning, 1466
training, 915, 2493
Transference, 4580
love and, 4567
management, 2572
in psychotherapy, 2611
Transient, mental attitude, 5962
hygiene, 5945
Translocation of tissue and touch, 5392
Transmission, paranoia, 3620
Transplant, *Amblystoma*, 2039
Trauma, cinema as, 1854
cranial, child, 5037, 5569
fetishism and, 5544
industrial, 2197
neurosis, 4594
Treatise, psychology, 2394
Trematode, light response, 5888
Tremor, 184
Trial and error vs. insight, 93
Trilobite, sense organ, 4964
Triplets, 1074, 2556
(See also *Siblings, Twins*)
Tropism, beetle larva, 3071
insect, 272
kineto-, 259
(See also *Galvanotropism, Geotropism, Kinetotropism, Phototropism, Rheotaxis, Stereotropism*)
Truancy, 4283
True-false test, suggestion effect, 4298
Tuberculosis, emotion in, 1123
psychoanalysis in, 2560
Tumor, brain, psychic changes, 394
nystagmus in, 1169
Turin laboratory, 3887
Turtle, color vision, 4543
heart, vagus action, 277
Twilight, eye activity in, 1461
Twins, 309, 3082
behavior and interests, 3529
character, 1643
conjoined, finger prints, 4547
crime, 4060
diagnosis, 1646, 1647
dipsomania, 4058
environment and heredity, 5909
eyes, 4557
handwriting, 4061
intelligence, 319
similarity, 4551
intimacy, 4984
learning, 3851
mirror imaging, 2555
neurosis, 1682
personality, 3083, 5991
traits, 3649
reared apart, 3542, 4556
graphology, 316
resemblance, 4546
similarity, 4987
(See also *Siblings, Triplets*)
Tympanum, role, 1487
Type, affectivity, 3676
body, 4166, 5438
personality and, 5988
character, 5088
child, 3647
constitutional, 5999
formulation, Jaensch vs. Kretschmer, 2152
heredity and, 3539
legibility, 1286
personality, 1173, 3653, 3662
of Jaensch, 2151
projection and, 3147
psychologies, 30
secondary, 1193
study, 1176, 1442, 3664, 4917
theory, Jung, 4145
time perception and, 4388
vocation psychology and, 4632
Typewriter and beginning reading, 6126
design, 5192
keyboard, 4696
vacation effect, 4953
Typology, 3900

Ultraviolet, acuity and, 2906
effects, fly, 1627
sensitivity, *Drosophila*, 5893
vision in, 1505
Planaria, 3049
Uncanny, psychoanalysis of, 5912
Unconscious, 2157, 4068
from electricity, 3488
experiments on, 4578
Gestalt and, 2581
Hartmann theory, 336
motivation, art, 5483
preference, 3955
wish, 2090
(See also *Psychoanalysis*)
Unemployment, 3743, 5649
attitudes, 2728, 3748, 5197
mental hygiene in, 511, 1270, 4256
relief cases, 2202
scholarship and, 2330
social consequences, 472
Unit, small linear, 5760
Unity, compositional, child, 6181
University training and vocation, 1312
(See also *College*)
Urination neurosis, 360
Urologic symptoms, psychogenic, 2113

Vacation effect, typing, 4953
Vagina, denial, 3559
in sex development, 338
Vaginismus, 1673
Vagotonia and suggestibility, 1090
Vagus action, snake heart, 193
turtle heart, 277
afferent impulses in, 4426
impulses and respiration, 103
nerve, 1543
Validity, Bernreuter scale, 4163
child study literature, 5318
English tests, 3278
item vs. test, 5693
introversion tests, 4150
judgment, 1356
music tests, 477
neuroticism scale, 4152
questions, 6000
oral examination, 4757
personality tests, 5092
preschool tests, 1364
psychotechnical tests, 4726
rating, 2311
spelling tests, 5670
test, 2802, 3805, 5269, 6118
item, 4772, 5682
vocational interest test, 4692
Woodworth-Mathews inventory, 2647

Value, 5110
in ancient philosophy, 770
attitudes, sex difference, 4153
differences, college, 1182
distribution, student, 5576
judgment determinants, 3656
in primitive culture, 532
social behavior, 4691
test, 3138
freshmen, 1178
Vanity, 3657
Variability in fatigue, 3466
hunger and, 2024
output and, 992
practice and, 3969, 5436, 5850
effect on, 2968
psychotechnical tests, 4722
sex differences, 5967
test, 4768
Variance and ability, work, 1275
analysis, 2310, 6133
prediction, 1353
Variation coefficient, error of difference, 6135
continuous, in perception, 2905
intelligence, preschool child, 2839
intensity in work and, 4719
speed and, work, 4705
Vasodilator nerve action, 5824
Vasomotor localization, cortex, 3984
Vegetative system, pathology, 934
Ventilation and efficiency, 4246
infra-red and, 63
reflex excitability and, 4007
Vermeylen tests, 6136
Vertebra, nerve supply, 2465
Vertebrate eye, 1620
color filter, 2059, 2545
psychology study methods, 2025
vision, 2436
(See also *Bird, Fish, Reptile*)
Vertigo, 2876, 4948
Vessel, reflex sensitivity, 4445
Vestibule, pressure in, 3008
(See also *Labyrinth*)
Vibration and audition, 3918
fusion frequency, 4360
hearing, 5784
sense, 871, 2440
sensitivity, 822, 2885
Vibrissa, cat, 2051
Vienna, psychology in, 5731
Vision, 3410
accommodation speed, 5804
action current, rabbit, 4417
acuity, 41, 2877, 5763
bee, 297
changes, 3913
stimulus distance and, 846
illumination and, 81
test, 4871
adaptation apparatus, 773
adjustment by, 2915
angle and depth perception, 3949
apparatus, lamprey, 1069
apparent movement, 5375
applications, 4888
vs. audition, advertising, 4720
automobile driving, 6073, 6075
binocular summation, 5770
unequal accommodation, 1947
brain localization, 949
brightness, butterfly, 3040
function, 5371
child, 2840
color, 74, 865, 2437, 2918, 3931
bee, 4513
coloration and, frog, 2046
conditioning after loss of hemisphere, 176
control, 4900
controlled factors, 833
convergence change, 4903
copepod, 224
cortex action current and, 5847
goldfish, 4531
localization, 4045
cortical integration, 4374
crayfish, 3523
defects, child, 1321, 5778
in historical characters, 1445
incidence, 3393
in delinquency, 4892
depth, 4379
differential sensitivity, 3928
in dim and bright light, 40
direction, 1490
discrimination, 3055
cat, 5897
chimpanzee, 3506
double, transitory, 862
dragon-fly larva, 3063
Drosophila, 2029, 3077, 3497
effects, CO poisoning, 80
esthetics and, 1794
experience, 4889
field, bee, 223, 234
defects, 2879
expansion, 4387
fish, 3074
fish, 4485, 4525
flicker visibility, 78
Gestalt in, 61
disruption, 4883
hair color and, mice, 5474
horopter, 57
illusions, chick, 295
flying, 2419
images, size and shape, 4869
improvement, 5772
infant, 4824
innervation, 2911
malingering tests, 4864
mechanism, 5790
monocular, 5986
monkey, 1613
movement in, after-effect, 1945
mescalin, 3101
neonate, 1382
Nereis, 4959
nerve correlates, 5785
ocellus, bee, 298
in old age, 5369
optic papilla, 5811
in orientation, 1482
other modes and, 832
path lesion, flicker in, 5388
perception, development, 838
phenomenal size, 872
physiology of, 5800
pigeon, 2027
pigmentation and, 824
planarians, 3049
porencephaly, 4416
psychogenic disturbances, 5934
pursuit, infant, 671
purple, rat retina, 4053
reactions of child, 1392
reptiles, 3073
retention and cortical lesion, rat, 4967
retina pigmentation and, 827
salamander, 198
school child, 1892
sensitivity and stimulus size, 5779
size constancy, 834, 856, 3938, 5377
snake, 1631
space with glasses, 875
speed recognition, 5372
spider, 236
standards, aviation, 1797
status, hemianopsia, 830
stimulus correlates, 5809
study, history of, 2917
suggestion influences on, 826
Talbot's law, 5765
in tactile recognition, 802
test, child, 2433
school, 1957
time perception and, 3920
touch recognition and, 5354
threshold, light stimulation and, 2893
variability, 2919
vs. touch illusions, 5485
ultraviolet, 1505
vertebrate, 2436
Weber's law in, 60
for X-ray, 5783
(See also *Acuity, Accommodation, Adaptation, After-image, Amblyopia, Binocular, Blind, Brightness, Color, Convergence, Depth, Diplopia, Discrimination, Divergence, Eye, Field, Figure, Flicker, Form, Fusion, Glare, Glasses, Gray, Ground, Hemianopsia, Illusion, Intensity, Lens, Light, Perimetry, Perspective, Photometry, Photopsia, Purkinje, Reflection, Refraction, Regard, Spectacles, Stereoscopy, Stroboscopy, Tachistoscope*)
Vital capacity, Japanese, 2488
Vitalism, 3368
mechanism and, 1908
Vitamin A in retina, 1509
B deficiency, rat, and learning, 2512
B, intelligence and, 2327
Vocabulary, action, 4680
child, 3262, 3840
Chinese, 2717
counts, 3210
in delinquency, 2706
difficulty, IQ and, 1367
drill method, 4238
geometry, 2263
measurement, 3720
pre-primer, 6099
speech vs. reading, 4216
spelling, 5258
test, 2783, 3271
written, adolescent, 5121
(See also *Word*)
Vocation adjustment, correspondence course and, 2221
prediction, 3791
report, 4702
analysis, 4262
aptitude, educability, 2226
Japanese, 2711
measurements, 3762
attitude, adolescents, 4814
choice, 4760, 4265
adolescent, 3861
college, 3283
family in, 4287
reasons, 2797
classification, 4229
in deafness, 6108
education for, 3795
Chinese, 1821
girl, 676
guidance, 1341, 2222, 2246, 2745, 2751, 3244, 3260, 3291, 3301, 4247, 4255, 4256, 4300, 4745, 5201, 6107, 6109, 6112
aids to, 2845
Belgium, 2223
college, 1333
conference, 5208
constitution and, 1573
critique, 2779
defense, 2772
depth psychology and, 1675
delinquency prevention and, 4662
disabled student, 4763
England, 6094
factor theory in, 3305
feeble-minded, 571
follow-up, 2749, 3236
France, 2225, 4240
girls, 2281
interests, 543
in mechanics, 3752
parents, 3841
personality in, 3152
Poland, 4693
professional students, 1335
professions, 632, 1802, 3771, 4724
programs, 2788
results, 609
Russia, 4270
secondary school, 2786
social function, 4704
student, 3281, 3289
temperament in, 2743
test, 1798, 3223
unemployed, 565
U.S.A., 2224
intelligence in, 4234
interests, 3769
blank, 2248
Chinese girls, 2758
permanence, 6171
scholarship and, 3282
sex difference, 1297
test, 3247
performance, 1363
validity, 4692
women, eminent, 573
outlook, child, 5710
preference, Russian youth, 5322
prestige value, 5213
psychology and type, 4632
satisfaction, 5199
college men, 4728
school interests and, 3796
selection, 550, 5194
intelligence and, 6102
studies, 4251

success, 1343
athletics and, 3290
prediction, 2736, 2796
tests, 6176
deaf, 5094
trends, 3221
review, 3227
university training and, 1312
for women, 566, 3225
youth and, country, 4332
(See also *Occupation, Profession, Selection*)
Voice anomaly, bibliography, 5124
child, pitch, 5300
cinema study, 4184
differences, 1233
basis, 2688
mechanisms, X-rays of, 4658
nasality, 2685
personality and, 2148, 4144
quality, basis, 2695
reading, 2689
register, 3895
significance, 5914
vertebrate, 5173
(See also *Larynx, Phonetics, Speech*)
Volition and behaviorism, 5440
conditioning rates, 2978
fatigue and, 4703
review, 2497
(See also *Will*)
Voting behavior, 1249
Volume, tonal, 5396
Volvox, adaptation, 3048
Vowel, analysis, 1778
intervals, 1759
mixture, 5792
nature of, 1222
phonetics, 3167
pitch, 527
quality, 4181
sound track, 1780
tongue position, 2686

Wage, attitude, ability, 3746
Waking ability, 350
(See also *Sleep*)
Walking age, child, and intelligence, 5712
quadrambulant, 4807
(See also *Gait, Locomotion*)
War attitudes and politics, 4180
control, 4182
films, child, 3837
instincts, 1783
(See also *Military, Pacifism*)
Warming up, 5448
measurement of, 4475
Warmth and duration, 2889
spots, adaptation, 49
(See also *Heat, Temperature*)
Warren, H. C., obituary, 1898, 2873, 3893
Washington, G., identifications, 6004
Wasp, 260
adaptability, 4979
behavior, 2038
cell escape, 4977
distance judgment, 5902
division of labor, 4978
habits, 4043
instinct, 283, 1616
olfaction, 4976
work division, 1625
Wastage, time, 2723
Weber's law, 3395, 3400, 3401
in vision, 60
Weakness, psychological, 1695
Wealth, child ideas, 3835
Weather, bird song and, 1014
Wedensky inhibition in myasthenia gravis, 122
Weight and birth month, 5722
build and, 1351
constitution and, 5718
discrimination, error, 882
rat, 3479
lifting, 1495
apparatus, 1496
perception, 2898
sensation, 1499, 1500
Welder, tests, 564
Western Psychological Association, proceedings, 788
Werewolf, 2712
Wever-Bray method after cochlea lesion, 4904
phenomenon, 5788
Wheel, running, 1058
White House Conference psychoneurotic inventory, reliability, 3139
Whole-part problem, 906
poetry learning, 3430
Will, 2969
ethics and, 3217
experimental study, 3465
freedom, 4020
neurosis, 421
to power, 3476
-temperament, Downey tests, 1175
tests, 4440
(See also *Effort, Volition*)
Wilson's disease, 1135
Wind effects on comfort, 4469
Wish, child, 693, 1405
unconscious, 2090
Witch, exorcism, 2692
-craft and arson, 473
Woman, 1181
anthropometry, 976
anxiety in, 5060
arson by, 2682
beauty, 2587
castration fear, 3102
college, metabolism, 2498
crime by, 481, 2187
depression, 4608
development, 3092
education, 3781
frigidity, 3098
graduate, social attitude, 466
homicide, 4196
homosexuality in, 444, 1660
eminent, vocational interests, 573
infantile, 3104
in myth, 5127
negro, reading, 3690
opium addict, sex life, 4072
primitive, 1751
psychoanalytic problems, 3091
psychology, 3643
psychosis, 366
sadism, 1651
sex development, 3559
emotion, 2922
single, 4649
smoking and metabolism, 4998
sterility, 5961
student, failure causes, 4274
vocation, 566, 3225
worship, 3178
(See also *Gynecology*)
Woodworth-Mathews inventory, validity, 2647
Word counts, 3210
development, 5177
meaning, testing, 2271
tests, 3271
Work ability, 3764
encephalitis in, 4617
variance and, 1275
accidents, cinema, 4222
adrenalin and, 1567
atmosphere and, 2219, 2220
attention in, 4266
in brain-injured, 2011
breathing in, 2999
cerebral effect, 4921
chronaxy and, 1572
color effects, 4716
combustion products, 3996
concept, 5196
conditions, 5198
morale and, 4239
conferences on, 2218
curve, Japanese, 484
differences, 4463
distance, school child, 1892
distraction, 3428
division, wasp, 1625
duration and fatigue, 542
dynamograph study, 1584
effects, 1003
on chronaxy, 4479
fatigue and, 1566, 2245
for girls, 3849
glare effects on, 2421
group, 2240
growth and, rat, 3993
habits and hypophrenia, 3629
illumination and, 1287
imagination in, 3231
injury, compensation, 2252
intensity and variation, 4719
interpolated, 559
joy in, 160
load and, muscle, 3998
mental, 4939
exercise and, 156
galvanic reflex in, 4021
metabolism and, 131
oxygen consumption in, 2005
morale, 1269
muscle content and, rat, 4041
rat, 2973
muscular, and chronaxy, 159
vs. load, 3997
output and variability, 992
pressure and, 3457
psychology of, 2243, 4723
rationalization, 4708
recovery from, 1989
respiration in, 3471
review, 5874
rhythm, agriculture, 1280, 3234
sex difference, 1276
social factors in, 4267
speed and variation, 4705
temperature and humidity, 1586
therapy, 4596
in psychosis, 1117
vs. time limit, learning, 4933
scores, 5677
variability and fatigue, 3466
(See also *Ergogram, Exercise, Fatigue, Industry, Occupation*)
Worker, attitudes, 3744
mental hygiene, 6066
youth, 5723
Worm, light reaction, 4532
sense organs, 3067
Writing disability, 507
habits test, 2290
reversals, 3177
(See also *Graphology, Handwriting*)
Wundt, W., appreciation, 3384
genealogy, 19
as philosopher, 2397
present schools and, 2413
Wyoming laboratory, 4854

Xenoglossia, 5004
X-ray effects, dog audition, 3493
brain, 4422
vision for, 5783

Yellow, saturation scale, 836
Yoga, 1440, 4082, 4999
constipation and, 5494
Youth, country, and vocation, 4332
ideal, 3875
movement, 2366
preservation, 2205
Russia, interests, 5322
successive generations, 2329
working, 5723
(See also *Adolescence*)

ADDITIONAL BIBLIOGRAPHIC SOURCES

L'Année biologique. (Ed) Fed. des Soc. des Sci. Naturelles (Pub) Paris: Presses Universitaires.

L'Année psychologique. (Ed) Piéron, H. (Pub) Paris: Alcan.

Bibliographia eugenica. (Eds) Davenport, C. B., Laughlin, H. H., & Steggerda, M. (Pub) Cold Spring Harbor, Long Island, N. Y.: Eugenics Res. Asso. (Suppl. to *Eugenical News.*)

Bibliographia evolutionis. Paris. (Suppl. to *Bull. Biol. de la France et de la Belgique.*)

Bibliographia zoologica. Zurich: Concilium Bibliographicum. (Suppl. to *Zool. Anzeiger.*)

Bibliographie der Philosophie und Psychologie. Leipzig: Heims.

Bibliographie der Sozialwissenschafter. (Ed) Statist. Reichsamt. (Pub) Berlin: Hobbing.

Bibliographie scientifique française. (Section 2, sciences naturelles et biologiques.) (Ed) Commission du repertoire de bibl. sci. (Pub) Paris: Gauthier-Villars.

Biological abstracts. (Ed) Schramm, J. R. (Pub) Philadelphia: Union of American Biological Societies, Univ. of Pennsylvania.

Child development abstracts. (Ed) Durea, M. A. (Pub) Washington: Committee on Child Development, National Research Council.

International index to periodicals. (Ed) Muench, A. F. (Pub) New York: Wilson.

Jahresbericht über die gesamte Kinderheilkunde. (Ed) Putzig, H. (Pub) Berlin: Springer.

Jahresbericht über die Physiologie und experimentelle Pharmakologie. (Eds) Rona, P., & Spiro, K. (Pub) Berlin: Springer.

Medical science abstracts and reviews. London: Medical research council.

New international yearbook (article *Psychology*). (Ed) Wade, H. T. (Pub) New York: Dodd, Mead.

Psychological index. (Eds) Hunter, W. S., & Willoughby, R. R. (Pub) Princeton, N. J.: Psychological Review Co. (Material duplicated in *Zeitschrift für Psychologie.* (Ed) Schumann, F. (Pub) Leipzig: Barth, and *Archiv für die gesamte Psychologie.* (Ed) Wirth, W., (Pub) Leipzig: Fock.)

Physiological abstracts. (Ed) Mellanby, J. (Pub) London: Lewis.

Quarterly cumulative index medicus. (Eds) Fishbein, M., Hutchins, M., Ashburn, P. M., & Allemann, A. (Pub) Chicago: American Medical Association.

Social science abstracts. (Ed) Chapin, F. S. (Pub) Menasha, Wis.: Social Science Research Council. (Vols. 1–4, 1929–1932.)

U. S. Bureau of Education. Monthly record of current educational publications. (Ed) McCabe, M. R. (Pub) Washington: Gov't Printing Office.

U. S. Surgeon General's Office. Index-catalogue of the library. (Ed) Ashburn, P. M. (Pub) Washington: Gov't Printing Office.

Zentralblatt für die gesamte Neurologie und Psychiatrie. (Ed) Hirschfeld, R. (Pub) Berlin: Springer.

EDITORIAL NOTICE

Beginning with Volume IX, 1935, all abbreviations of the names of journals listed in the PSYCHOLOGICAL ABSTRACTS will be based upon the WORLD LIST OF SCIENTIFIC PERIODICALS, 2nd edition, 1934, published by the Oxford University Press. This new policy is adopted in the interests of uniformity in the citation of scientific sources, and it involves but few changes from the mode of citation previously found in the PSYCHOLOGICAL ABSTRACTS. Hereafter when readers or editors wish to ascertain the specific abbreviation used for a given journal, they can do so readily by consulting the WORLD LIST without searching through many pages of the PSYCHOLOGICAL ABSTRACTS.

THE EDITORS

American Psychological Periodicals

American Journal of Psychology—Ithaca, N. Y.; Cornell University.
Subscription $6.50. 624 pages annually. Edited by M. F. Washburn, Madison Bentley, K. M. Dallenbach, and E. G. Boring.
Quarterly. General and experimental psychology. Founded 1887.

Journal of Genetic Psychology—Worcester, Mass.; Clark University Press.
Subscription $14.00 per annum; $7.00 per volume. 1,000 pages annually (2 volumes). Edited by Carl Murchison.
Quarterly. Child behavior, animal behavior, and comparative psychology. Founded 1891.

Psychological Review—Princeton, N. J.; Psychological Review Company.
Subscription $5.50. 540 pages annually. Edited by Herbert S. Langfeld.
Bi-monthly. General psychology. Founded 1894.

Psychological Monographs—Princeton, N. J.; Psychological Review Company.
Subscription $6.00 per vol. 500 pages. Edited by Joseph Peterson.
Without fixed dates, each issue one or more researches. Founded 1895.

Psychological Index—Princeton, N. J.; Psychological Review Company.
Subscription $4.00. 400–500 pages. Edited by Walter S. Hunter and R. R. Willoughby.
An annual bibliography of psychological literature. Founded 1895.

Psychological Bulletin—Princeton, N. J.; Psychological Review Company.
Subscription $6.00. 720 pages annually. Edited by Edward S. Robinson.
Monthly (10 numbers). Psychological literature. Founded 1904.

Archives of Psychology—New York, N. Y.; Columbia University.
Subscription $6.00. 500 pages per volume. Edited by R. S. Woodworth.
Without fixed dates, each number a single experimental study. Founded 1906.

Journal of Abnormal and Social Psychology—Eno Hall, Princeton, N. J.; American Psychological Association.
Subscription $5.00. 448 pages annually. Edited by Henry T. Moore.
Quarterly. Abnormal and social. Founded 1906.

Psychological Clinic—Philadelphia, Pa.; Psychological Clinic Press.
Subscription $3.00. 288 pages. Edited by Lightner Witmer.
Without fixed dates (quarterly). Orthogenics, psychology, hygiene. Founded 1907.

Journal of Educational Psychology—Baltimore: Warwick & York.
Subscription $6.00. 720 pages. Monthly except June to August. Edited by J. W. Dunlap, P. M. Symonds and H. E. Jones. Founded 1910.

Psychoanalytic Review—Washington, D. C.; 3617 10th St., N. W.
Subscription $6.00. 500 pages annually. Edited by W. A. White and S. E. Jelliffe.
Quarterly. Psychoanalysis. Founded 1913.

Journal of Experimental Psychology—Princeton, N. J.; Psychological Review Company.
Subscription $7.00. 900 pages annually. Edited by Samuel W. Fernberger.
Bi-monthly. Experimental psychology. Founded 1916.

Journal of Applied Psychology—Baltimore, Md.; Williams & Wilkins Company.
Subscription $5.00. 400 pages annually. Edited by James P. Porter.
Bi-monthly. Founded 1917.

Journal of Comparative Psychology—Baltimore, Md.; Williams & Wilkins Company.
Subscription $5.00 per volume of 450 pages. Two volumes a year. Edited by Knight Dunlap and Robert M. Yerkes.
Founded 1921.

Comparative Psychology Monographs—Baltimore, Md.; The Johns Hopkins Press.
Subscription $5.00. 400 pages per volume. Knight Dunlap, Managing Editor.
Published without fixed dates, each number a single research. Founded 1922.

Genetic Psychology Monographs—Worcester, Mass.; Clark University Press.
Subscription $7.00. 500 pages annually. Edited by Carl Murchison.
Bi-monthly. Each number one complete research. Child behavior, animal behavior, and comparative psychology. Founded 1925.

Psychological Abstracts—Eno Hall, Princeton, N. J.; American Psychological Association.
Subscription $6.00. 700 pages annually. Edited by Walter S. Hunter and R. R. Willoughby.
Monthly. Abstracts of psychological literature. Founded 1927.

Journal of General Psychology—Worcester, Mass.; Clark University Press.
Subscription $14.00 per annum; $7.00 per volume. 1,000 pages annually (2 volumes). Edited by Carl Murchison.
Quarterly. Experimental, theoretical, clinical, and historical psychology. Founded 1927.

Journal of Social Psychology—Worcester, Mass.; Clark University Press.
Subscription $7.00. 500 pages annually. Edited by John Dewey and Carl Murchison.
Quarterly. Political, racial, and differential psychology. Founded 1929.

PUBLICATIONS

OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

EDITED BY

S. W. FERNBERGER, UNIVERSITY OF PENNSYLVANIA (*J. Exper. Psychol.*)
WALTER S. HUNTER, CLARK UNIVERSITY (*Index and Abstracts*)
HENRY T. MOORE, SKIDMORE COLLEGE (*J. Abn. and Soc. Psychol.*)
HERBERT S. LANGFELD, PRINCETON UNIVERSITY (*Review*)
EDWARD S. ROBINSON, YALE UNIVERSITY (*Bulletin*)
JOSEPH PETERSON, GEORGE PEABODY COLLEGE FOR TEACHERS (*Monographs*)

HERBERT S. LANGFELD, Business Editor

PSYCHOLOGICAL REVIEW

containing original contributions only, appears bi-monthly, January, March, May, July, September and November, the six numbers comprising a volume of about 540 pages.

PSYCHOLOGICAL BULLETIN

containing critical reviews of books and articles, psychological news and notes, university notices, and announcements, appears monthly (10 numbers), the annual volume comprising about 720 pages. Special issues of the BULLETIN consist of general reviews of recent work in some department of psychology.

JOURNAL OF EXPERIMENTAL PSYCHOLOGY

containing original contributions of an experimental character, appears bi-monthly, February, April, June, August, October, and December, the six numbers comprising a volume of about 900 pages.

PSYCHOLOGICAL INDEX

is a compendious bibliography of books, monographs, and articles upon psychological and cognate topics that have appeared during the year. The INDEX is issued annually in June, and may be subscribed for in connection with the periodicals above, or purchased separately.

PSYCHOLOGICAL ABSTRACTS

appears monthly, the twelve numbers and an index supplement making a volume of about 700 pages. The journal is devoted to the publication of non-critical abstracts of the world's literature in psychology and closely related subjects.

PSYCHOLOGICAL MONOGRAPHS

consist of longer researches or treatises or collections of laboratory studies which it is important to publish promptly and as units. The price of single numbers varies according to their size. The MONOGRAPHS appear at irregular intervals and are gathered into volumes of about 500 pages.

JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY

appears quarterly, April, July, October, January, the four numbers comprising a volume of 448 pages. The journal contains original contributions in the field of abnormal and social psychology, reviews, notes and news.

ANNUAL SUBSCRIPTION RATES

Review: $5.50 (Foreign, $5.75). **Index:** $4.00 per volume.
Journal: $7.00 (Foreign, $7.25). **Monographs:** $6.00 per volume (Foreign, $6.30).
Bulletin: $6.00 (Foreign, $6.25). **Abstracts:** $6.00 (Foreign, $6.25).
Abnormal and Social: $5.00 (Foreign, $5.25). Single copies $1.50.
Current numbers: **Journal,** $1.25; **Review,** $1.00; **Abstracts,** 75c; **Bulletin,** 60c.

COMBINATION RATES

Review and Bulletin: $10.00 (Foreign, $10.50).
Review and J. Exp.: $11.00 (Foreign, $11.50).
Bulletin and J. Exp.: $12.00 (Foreign, $12.50).
Review, Bulletin, and J. Exp.: $16.00 (Foreign, $16.75).
Review, Bulletin, J. Exp., and Index: $19.00 (Foreign, $19.75).

Subscriptions, orders, and business communications should be sent to the

PSYCHOLOGICAL REVIEW COMPANY
PRINCETON, N. J.